

A Physical Activity Toolkit for Registered Dietitians:

Utilizing Resources of
Exercise is Medicine[®]



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Introduction

Why develop a toolkit on physical activity for registered dietitians (RDs) aimed at providing physical activity guidance to patients/clients? How does providing physical activity guidance relate to a RD's individual scope of practice? How can being knowledgeable about physical activity, competent in providing physical activity guidance, and incorporating physical activity recommendations into your practice, help your patients/clients reach their nutrition and health goals? How can providing physical activity guidance to patients/clients enhance the quality of your dietetic practice? This toolkit will address each of these questions and is designed as a first step in helping RDs talk with their patients/clients about physical activity and in assisting RDs to incorporate guidance about this key lifestyle component into their practice.

Listed below are several reasons for RDs to learn about physical activity and its integration with nutrition in meeting the needs of patients/clients for health and well-being.

- Nutrition and physical activity play key roles in the prevention and treatment of chronic disease and obesity. The 2009 Position of the American Dietetic Association (ADA): Weight Management states, "RDs must remain current on topics related to the treatment and management of patients with obesity, including the knowledge and skills that are required to counsel patients about physical activity".¹ Meeting the needs of patients/clients is essential for RDs to maintain their role as a key player in the health care team.
- Patients/clients are asking about physical activity and how being physically active can help manage their medical conditions, weight and maintain good health. Being competent in responding to their questions and knowing how to refer patients/clients to appropriate credentialed fitness professionals whose certification is accredited by the National Commission for Certifying Agencies (NCCA) will enhance the RD's ability to help patients/clients reach their goals.
- The Academy encourages RDs to promote physical activity as a part of a healthy lifestyle. RDs who are knowledgeable about physical activity, and who are competent in providing physical activity guidance as part of their practice, will have enhanced lifestyle management skills that increase their value to the health care team and to patients/clients.

Target Audience

This toolkit is designed for RDs who want to talk with their patients/clients about achieving the recommended levels of physical activity and developing healthy lifestyles that include sound nutrition practices and appropriate physical activity. The toolkit is focused toward the adult patient/client. This toolkit will assist RDs in determining how providing physical activity guidance to patients/clients may fit within their individual scope of practice. RDs, regardless of skill level and work setting, will benefit from the information provided within this toolkit.

Purpose

The purpose of the Physical Activity Toolkit for RDs is two-fold:

- 1 To assist RDs working in diverse settings (e.g. inpatient and outpatient clinical settings, private practice, etc.) to routinely provide safe and effective physical activity guidance to their patients/clients based on the recommendations provided in the 2008 Physical Activity Guidelines for Americans.²
- 2 To effectively refer patients/clients to qualified, certified fitness professionals when a personalized exercise prescription and/or supervised activity is requested or recommended by the patient's/client's physician.

Physical Activity Toolkit for Registered Dietitians: Utilizing Two Key Resources

This toolkit introduces and utilizes two key resources to help RDs learn more about physical activity and begin to incorporate physical activity recommendations into their practice. These two resources are briefly described below.

1. The 2008 Physical Activity Guidelines for Americans, United States (US) Department of Health and Human Services² (<http://www.health.gov/paguidelines>). This evidence-based document is based on the detailed review of the research literature done by the Physical Activity Guidelines Advisory Committee and the report they produced.³ These two documents are a resource for RDs that provides information and guidance to assist Americans in achieving the health benefits of regular physical activity. As clearly outlined in the Committee Report³ and these Guidelines², physical activity guidance is indicated in chronic disease management and prevention, including overweight/obesity, cardiovascular disease, diabetes and metabolic syndrome.
2. Exercise is Medicine® (EIM) launched by the American College of Sports Medicine (ACSM) and the American Medical Association (AMA) is a multi-organizational initiative coordinated by the American College of Sports Medicine (ACSM) (<http://www.exerciseismedicine.org>).⁴ This initiative encourages all healthcare providers to assess and counsel all patients/clients in achieving the physical activity recommendations outlined in the 2008 Physical Activity Guidelines for Americans listed above.²

RDs are skilled in translating the science of food and nutrition into practical solutions for healthy living. RDs use their nutrition expertise to assist patients/clients in making personalized, positive lifestyle changes. In communicating with their patients/clients, RDs are commonly asked about relationships among nutrition, physical activity and healthy lifestyles. Thus, using national physical activity guidelines, in coordination with their food and nutrition expertise, RDs are well positioned to assist patients/clients in integrating physical activity with nutrition in the promotion of health and well-being and in the prevention and treatment of chronic disease and other conditions that impact health.

The Goal of the Physical Activity Toolkit for RDs

The goal of this toolkit is to provide RDs with a set of resources for encouraging physical activity as an effective strategy for the prevention, treatment and management of more than 40 of the most common chronic health conditions in adults.⁵ The toolkit can also help RDs incorporate physical activity into weight management plans for people of all ages. The approach is designed to be flexible and to facilitate utilization by RDs working in diverse settings, such as inpatient and outpatient clinical settings, private practice, wellness organizations/programs, community organizations, and public health.

Standards of Practice and Standards of Professional Performance

Evaluating the physical activity habits and restrictions of patients/clients during a comprehensive nutrition assessment is indicated by the Academy Revised 2008 Standards of Practice (SOP) in Nutrition Care and Standards of Professional Performance (SOPP) for RDs⁶ and is consistent with the Nutrition Care Process (NCP)⁷. The Academy/ Commission on Dietetic Registration (CDR) Code of Ethics⁸ and the 2008 ADA SOP in Nutrition Care and SOPP for RDs⁶ are tools within the Scope of Dietetics Practice Framework (SDPF) (<http://www.eatright.org/scope/>) that guide the practice and performance of RDs in all settings⁹.

The purpose of the decision aids and tools in the SDPF is to assist RDs in determining whether an activity or service is within their individual scope of practice. The Decision Analysis Tool (Appendix O) and the Decision Analysis Tree (Appendix P) provide a structured process that enables RDs to determine the degree to which they can safely and effectively incorporate general physical activity guidance, based on the 2008 Physical Activity Guidelines for Americans, into their individual scope of practice. RDs who work in the focus area of sports dietetics are referred to the Standards of Practice (SOP) and Standards of Professional Performance (SOPP) for RDs (Generalist, Specialty, Advanced) in Sports Dietetics.¹⁰

Contents of the Toolkit

This Physical Activity Toolkit for RDs contains the following information and resources:

- Key recommendations of the 2008 Physical Activity Guidelines for Americans.^{2,3}
- Key recommendations and resources of the Exercise is Medicine® (EIM) Initiative.⁴
- Definitions for physical activity, physical activity guidance, exercise and exercise prescription.
- Recommendations for RDs to address physical activity with patients/clients in accordance with the Academy's Nutrition Care Process (NCP).
- Case studies demonstrating how to incorporate physical activity guidance into each step of the NCP for patients/clients with various health conditions or concerns.
- Scenario examples of nutrition interventions to assist the RD in distinguishing physical activity guidance from exercise prescription.
- Downloadable professional guidance tools and handouts for patients/clients.
- Links to the 2008 Physical Activity Guidelines for Americans, the ACSM Exercise is Medicine® (EIM) Initiative, and additional resources.

Development of the Toolkit

Development of the Physical Activity Toolkit for RDs is a collaborative effort by the Weight Management (WM) and Sports, Cardiovascular, and Wellness Nutrition (SCAN) Dietetic Practice Groups (DPGs) of the Academy and the ACSM EIM Initiative. The development team included RDs from the WM and SCAN DPGs and certified professional members of ACSM: ACSM Certified Health Fitness Specialists, ACSM Certified Clinical Exercise Specialists®, and ACSM Registered Clinical Exercise Physiologists®.

The development team solidified concepts, created the toolkit and obtained approval from participating organizations. Many of the forms referred to in the toolkit and provided in the appendix are available for public use and can be downloaded from the EIM web site (www.exerciseismedicine.org).

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Chapter 1

Physical Activity Overview and Recommendations

What is Exercise is Medicine®?

Exercise is Medicine® (EIM) is an initiative launched in 2007 by ACSM and the AMA designed to encourage primary care physicians and other health care providers, regardless of specialty, to include physical activity when designing treatment plans for patients/clients (http://exerciseismedicine.org/documents/EIMFactSheet_all.pdf).⁴ This initiative is committed to the belief that exercise (a type of physical activity that is planned, structured and repetitive) and physical activity (any body movement that works your muscles and uses more energy than you use when you're resting) are integral in the prevention and treatment of chronic disease and should be assessed as part of medical care.⁴ Research strongly suggests that exercise has a role in the treatment and prevention of numerous chronic conditions, such as heart disease, stroke, diabetes, obesity and hypertension.³ Integrating physical activity counseling into the US healthcare system has the power to significantly improve the health and quality of life of the American public.

At the core of the EIM Initiative is the recommendation that healthcare providers, including RDs, assess and review every patient's/client's physical activity level at every visit. Patients/clients should then be counseled on including physical activity in their lifestyle. It is recommended that healthcare providers complete a Physical Activity Clearance Form ([Appendix K](#)) and an Exercise Readiness and Recommendation Form ([Appendix J](#)) for each patient/client.

EIM has three guiding principles, which are given below:⁴

1. Exercise and physical activity are important to health and the prevention and treatment of many chronic diseases.
2. More should be done to address physical activity and exercise in health-care settings.
3. Multi-organizational efforts to bring a greater focus on physical activity and exercise in healthcare settings are encouraged.

The roles of the RD in the EIM Initiative are given below:

- Evaluate the physical activity habits and restrictions of the patient/client utilizing the Physical Activity Assessment Form (Appendix A), Physical Activity History (Appendix B) and Preparticipation Flow Chart (Appendix D).
- If Physical Activity Clearance is not provided in the physician referral to the RD, provide the Physical Activity Clearance Form (Appendix K) and Exercise Readiness and Recommendation Form (Appendix J) for their patient/client, which is then taken to their physician.
- Address the benefits of physical activity in the prevention and treatment of chronic disease.
- Address adding or increasing physical activity as recommended by the 2008 Physical Activity Guidelines for Americans.²
- Refer the patient/client to a certified fitness professional whose certification is accredited by the NCCA. (see Appendix I for a list of accredited exercise and fitness certifications).

Are Additional Credentials Necessary for RDs to Provide Physical Activity Guidance, Fitness Assessment or Exercise Prescription?

RDs by virtue of their training, credentialing, and experience, focus on nutrition for the prevention and treatment of chronic diseases. However, there are numerous conditions such as obesity, diabetes, hypertension and coronary heart disease for which optimal treatment includes both nutrition and physical activity interventions. Gaining confidence and competence in providing physical activity guidance as part of lifestyle counseling will allow RDs to provide more comprehensive, evidence-based treatment to their patients/clients.

This toolkit provides direction and resources for RDs who do not possess fitness or exercise credentials to provide physical activity guidance to patients/clients in accordance with the RD's individual and legal, if applicable, scope of practice; however, there are limits to the level of physical activity guidance an RD can competently and safely provide without additional training and appropriate certification. These limitations include the following assessments and exercise prescriptions:

- Fitness assessment
- Exercise prescription (defined below),
- Design of specific exercise routines, and
- Supervised physical activity or fitness training schedules.

To be qualified to provide these services, the RD would need to obtain exercise science knowledge and skills through continuing education, undergraduate or graduate course work, and/or exercise certification from an organization that offers NCCA accredited certification programs (Appendix I). Upon completion of certification or course work, additional professional liability insurance specific for providing exercise assessment and prescription or specific exercise routines is essential prior to providing these services. Without these additional credentials, the RD should refer the patient/client to a certified fitness professional whose certification is accredited by the NCCA.

Health Benefits of Physical Activity

The health benefits of physical activity are numerous. The 2008 Physical Activity Guidelines Advisory Committee, using an evidence-based approach, carefully examined the research literature to determine the strength of the scientific evidence for the health benefits of physical activity.³ This report was then used to produce the 2008 Physical Activity Guidelines for Americans.² Bulleted below are some of the key health benefits and findings of this committee, which are supported by strong scientific evidence.² RDs who are not familiar with these Guidelines can find the complete reference at <http://www.health.gov/paguidelines>.²

- Physically active people have higher levels of health-related fitness, a lower risk profile for developing a number of disabling medical conditions, and lower rates of various chronic diseases than people who are inactive.
- Research supports that 30-60 minutes of moderate to vigorous intensity physical activity on 5 or more days of the week (~2.5h/week) lowers risk of all-cause mortality, coronary heart disease, stroke, hypertension, and type 2 diabetes in adults and older adults. Most health benefits occur at this level of physical activity (e.g. brisk walking), with additional benefits occurring with more physical activity.
- Regular physical activity can help individuals maintain weight stability, lose weight and prevent weight regain after weight has been lost.
- Additional health benefits, especially fitness levels, can occur as the amount of physical activity increases (>150 min/week) through higher intensity, greater frequency and/or longer duration.
- Some physical activity is better than none. The least active in the population generally have the highest risk of a variety of negative health outcomes. The benefits of physical activity far outweigh the possibility of adverse outcomes.
- Both aerobic (endurance) and muscle-strengthening (resistance) physical activity are beneficial.
- The health benefits of physical activity occur for children and adolescents, young and middle-aged adults, older adults, people with disabilities, and those in every studied racial and ethnic group.

Key Terms and Definitions Used in Physical Activity

In order to understand and discuss physical activity with your patient/client, it is important to understand some key terms and definitions used in talking about physical activity. Below we have briefly defined the terms, baseline physical activity, health-enhancing physical activity, and exercise, and explained how physical activity guidance differs from exercise prescription. These terms and definitions come from the 2008 Physical Activity Guidelines for Americans.² See [Appendix L](#) for additional definitions and acronyms typically used when discussing physical activity.

- **Baseline activity**, or activities of daily living, refers to the light-intensity activities of daily life, such as standing, walking slowly and lifting lightweight objects. People vary in how much baseline activity they do. People who do only baseline activity are considered to be inactive or sedentary. They may do very short episodes of moderate- or vigorous-intensity activity, such as climbing a few flights of stairs, but these episodes are not long enough to meet the guidelines. In general, people are encouraged to increase their levels of baseline activities and decrease the amount of time in sitting activities.

- **Health-enhancing physical activity** is activity that, when added to baseline activity produces health benefits. In this document, the term “physical activity” generally refers to health-enhancing physical activity. Brisk walking, jumping rope, dancing, lifting weights, climbing on playground equipment at recess, and doing yoga are all examples of physical activity. Some people, such as postal carriers or carpenters on construction sites, may get enough physical activity on the job to meet the guidelines.
- **Exercise** is a form of physical activity that is planned, structured, repetitive, and performed with the goal of improving health or fitness. Although all exercise is physical activity, not all physical activity is exercise.
- **Physical activity guidance** is a patient/client-centered process used by RDs, and other health professionals, to assist medically-cleared patients/clients with planning and executing ways to increase their physical activity level in accordance with 2008 Physical Activity Guidelines for Americans. This approach uses a patient’s/client’s current level of physical activity and readiness to change as the basis on which personalized physical activity goals and plans are made. The health care professional typically uses cognitive and behavioral counseling skills to facilitate discussion with the patient/client in defining and attaining his/her physical activity goals.
- **Exercise prescription** is a detailed exercise plan, developed by a certified fitness professional, which is tailored to a person’s current fitness and health goals. This prescription is based on the patient’s/client’s current fitness level as assessed by objective fitness tests. These tests include, but are not limited to, cardiorespiratory fitness, musculoskeletal strength and endurance, flexibility, balance (for older adults), and body composition.

What Are The Physical Activity Recommendations?

As mentioned above, physical activity imparts significant health benefits, such as weight management, blood glucose control, improved lipid profile, decreased blood pressure, decreased anxiety, and an elevated sense of well-being, just to name a few. However, the question that patient’s/clients ask is, “How much physical activity do I need?” The 2008 Physical Activity Guidelines provide both general and specific guidelines that can be used by the RD helping their patient/client become more physically active.²

Encouraging Increased Baseline Activity

One of the first things an RD can do is encourage patients/clients to increase their baseline activity levels. Although the research evidence is not clear enough to tell us exactly how increased baseline activity improves health, it is sensible to do this for several reasons.²

- For all individuals, some activity is better than none. Even small increases in baseline activity can improve overall health.
- Increasing baseline activity (e.g. activities of daily living) increases energy expenditure, which can help in maintaining a healthy body weight. If these baseline activities are weight-bearing, they may improve bone health.
- There are reasons other than health to encourage more baseline activity. For example, walking short distances instead of driving can help reduce traffic congestion and the resulting air pollution.
- Encouraging baseline activities helps build a culture where physical activity is the social norm.
- Short episodes of activity are appropriate for people who were inactive and have started to gradually increase their level of activity and for older adults whose activity may be limited by chronic conditions. Start slow and increase slowly.

Encouraging Increased Health-enhancing Physical Activity

When encouraging patients/clients to increase their physical activity or begin a regular fitness program, it is important for the activity to be safe and appropriate for the patient's/client's level of fitness and health. The Guidelines make the following recommendations.²

- For safe physical activity, individuals should protect themselves by using appropriate gear and sports equipment, seeking safe environments, following rules and policies, and making sensible choices about when, where and how to be active.
- Individuals with chronic conditions (e.g., diabetes, heart disease, osteoarthritis) or symptoms (e.g., chest pain or pressure, dizziness, joint pain) should consult their healthcare provider about the types and amounts of activity appropriate for them.
- Physical activity is safe for almost everyone, and the health benefits of physical activity far outweigh the risks. People without diagnosed chronic conditions and who do not have symptoms do not need to consult with a healthcare provider before beginning physical activity.
- People should choose types of physical activity that are appropriate for their current fitness level and health goals, start slowly and go slowly, increase activity gradually, and use appropriate gear (clothing, footwear, protective equipment).
- Physical activity is fun, offers additional opportunities to be with friends and family, and improves fitness that facilitates participation in more intense activities or sporting events.

Patients/clients frequently want to know the health benefits they can expect from a given level of physical activity. One of the key findings of the 2008 Physical Activity Guidelines was the relationship between the amount of aerobic physical activity required to produce a given health benefit.

Table 1 indicates the health benefits associated with each level of physical activity.

Table 1. Levels of Weekly Amounts of Aerobic Physical Activity:²

Levels of Physical Activity	Range of Moderate-Intensity Minutes a Week	Summary of Overall Health Benefits	Comment
Inactive	No activity beyond baseline	None	Being inactive is unhealthy.
Low	Activity beyond baseline but fewer than 150 minutes a week	Some	Low levels of activity are clearly preferable to an inactive lifestyle.
Medium	150 minutes to 300 minutes a week	Substantial	Activity at the high end of this range has additional and more extensive health benefits than activity at the low end.
High	More than 300 minutes a week	Additional	Current science does not allow researchers to identify an upper limit of activity above which there are no additional health benefits.

General Physical Activity Recommendations

Below are some general guidelines the RD can use with patients/clients to help guide their physical activity.

- Adults and children should avoid inactivity.
- Adults should participate in at least 150 minutes a week of moderate-intensity physical activity, such as brisk walking or 75 minutes a week of vigorous activity. Further, the activity should be spread over at least 3 days a week.
 - See page 23 (<http://www.health.gov/paguidelines>) of the 2008 Physical Activity Guidelines for Americans for examples.
- Children and adolescents should participate in 60 minutes or more of moderate to vigorous physical activity daily.
 - On at least 3 days a week this should be vigorous activity.
 - Muscle- and bone- strengthening activities should be a part of the 60 minutes.
- See page 18 (<http://www.health.gov/paguidelines>) of the 2008 Physical Activity Guidelines for Americans for examples.
- Adults should participate in muscle-strengthening physical activity involving all major muscle groups (legs, hips, chest, back, shoulders, arms and abdomen) on 2 or more days a week.
- Older adults and people with limitations to these recommendations should do as much activity as their abilities allow.
 - See page 30 and 31 (<http://www.health.gov/paguidelines>) of the 2008 Physical Activity Guidelines for Americans for examples and additional considerations.

Linking the 2008 Physical Activity Guidelines for Americans with the 2010 Dietary Guidelines for Americans

The 2008 Physical Activity Guidelines for Americans² and the 2010 Dietary Guidelines for Americans¹¹ provide complementary and consistent, evidence-based advice for physical activity. The Dietary Guidelines for Americans¹¹ provide general guidance about physical activity and healthy eating for a wide range of health benefits, including weight management. The Dietary Guidelines for Americans are updated every 5 years. For the Dietary Guidelines, see www.health.gov/dietaryguidelines.¹¹ The 2008 Physical Activity Guidelines for Americans include specific, evidence-based health benefits, amounts and types of physical activity individuals should engage in, and offer options and benefits to all populations and many subgroups. See [Appendix M](#) for 2008 Physical Activity Guidelines for Americans At-A-Glance: A Fact Sheet for Professionals.

The Physical Activity Guidelines are needed to emphasize the importance of physical activity for health and to provide physical activity guidance. Currently, most Americans are inactive, which puts them at risk for obesity and chronic disease. The latest information suggests that inactivity among American children, adolescents and adults remains relatively high, and little progress has been made in increasing levels of physical activity among Americans.² For more information, go to <http://www.health.gov/paguidelines>.^{2,3} There you will find downloadable resources to increase your knowledge of the benefits of physical activity, resources for patients/clients and much more.

Chapter 2

Scope of Practice and the Nutrition Care Process

What is the Role of the RD in Providing Physical Activity Guidance?

Nutrition and physical activity are interrelated components of a healthy lifestyle. RDs can find it advantageous to address physical activity in conjunction with nutrition education and counseling associated with energy balance and chronic disease management. Providing general physical activity recommendations from credible sources, such as the 2008 Physical Activity Guidelines for Americans, can be critical to successfully achieving goals for nutrition and overall health. This toolkit is designed to assist RDs in determining how and to what extent providing physical activity guidance may fit into their individual and legal, if applicable, scope of practice and when to make a referral to a qualified, certified fitness professional.

What is scope of practice for an RD?

According to Academy's Definition of Terms, scope of practice describes the range of roles, functions, responsibilities and activities which dietetics practitioners are educated and authorized to perform.¹² Additionally, the Academy/CDR Code of Ethics states that RDs may only practice in the areas in which they are qualified and demonstrate competence in the delivery of food and nutrition services that achieve ethical, safe and quality outcomes.⁸ Thus, each RD possesses an individual scope of practice dependent on the RD's knowledge, skills and competencies to perform their duties within their practice settings.^{9,13} Be aware that policies within the practice setting also guide the practice of the RD in that setting. Additionally, state practice acts (licensure, certification, title protection) impose legal boundaries that delineate the services provided by RDs practicing within that state. Therefore, RDs who practice in states with a practice act that affects RDs also have a legal scope of practice.

Driven by competency, the individual scope of practice for RDs is a fluid concept.¹³ For example, advances in evidence-based practice, changes in the healthcare environment, and innovations in education provide RDs with opportunities to attain additional knowledge, skill, and competencies and, thus, expand their individual scope of practice. Providing physical activity guidance to apparently healthy individuals represents an opportunity for RDs to expand their individual scope of practice.

What Academy tools are available regarding scope of practice?

The Academy's Scope of Dietetics Practice Framework (SDPF) is designed as a practical, flexible method to assist RDs in identifying their legal and individual scope of practice and, therefore, making informed decisions to determine their individual depth and level of knowledge, skill, and competency to perform a desired or requested activity or service.^{9,13} Additionally, the Academy/CDR Code of Ethics⁸ and the 2008 SOP for RDs in Nutrition Care and the SOPP guide the practice and performance of RDs in all settings.⁶ Of particular relevance is the Academy Case Study – Recommendations by RD for Physical Activity Guidance. This case study utilizes the SDPF tools, the Decision Analysis Tool ([Appendix O](#)) and Decision Analysis Tree ([Appendix P](#)) to guide an RD in relating physical activity guidance to individual scope of practice. The case study and other SDPF and related resources are available on the Academy's Web site (<http://www.eatright.org/scope>).

The Academy's Nutrition Care Process (NCP)

This toolkit has been specifically organized using Academy's Nutrition Care Process (NCP) released as a practice standard in 2003.^{6,7,14} The NCP provides a consistent framework and systematic approach for all RDs to use when providing nutrition care. It moves dietetics practice from an experience-based field to an evidence-based field that documents outcomes. Use of a care process provides dietetics professionals with a framework for critical thinking and decision making to improve healthcare outcomes. Improved health outcomes that are directly linked to the services provided by the RD further enhances the role of the RD as the preferred provider of nutrition services.¹⁴ To learn more about the NCP, go to <http://www.eatright.org/HealthProfessionals/content.aspx?id=7077&terms=nutrition+care+process>.¹⁵

The four steps of the NCP are given below:

1. Nutrition Assessment
2. Nutrition Diagnosis
3. Nutrition Intervention
4. Nutrition Evaluation and Monitoring

1. Nutrition Assessment

The first step in the Academy's NCP and the ACSM EIM initiative is assessment.

NCP Step 1: Nutrition Assessment. RDs use accurate and relevant data and information to identify nutrition-related problems.⁶ Nutrition assessment is defined as:

“A systematic approach to collect, record and interpret relevant data from patients, clients, family members, caregivers, and other individuals and groups. Nutrition assessment is an ongoing, dynamic process that involves initial data collection as well as continual reassessment and analysis of the patient's/client's status compared to specific criteria.”⁷

The Nutrition Assessment step is the basis for the entire NCP. All of the components of the nutrition assessment are used to influence the diagnosis, intervention, monitoring, and future evaluations. These components may include physical assessment, anthropometrics, medical history, recent medical history, readiness to change, nutrition and exercise history, statements made by the RD's patient/client and the patient's/client's current behaviors and resources.

EIM Assessment. The EIM action guides use a three-step algorithm utilizing the information obtained from the Physical Activity Assessment Form ([Appendix A](#)) to provide guidance in working with patients/clients on physical activity.

- Step One: Current Exercise Habits
- Step Two: Physical Activity Readiness Questionnaire (PAR-Q)
- Step Three: Stages of Readiness to Change

There are two ways to complete many of the recommended physical activity assessment elements. The patient/client can fill in the Physical Activity Assessment Form ([Appendix A](#)) prior to their visit or at the beginning of the visit. Alternately, the RD can interview the patient/client during the first visit and complete the form.

The RD may utilize the Physical Activity History form ([Appendix B](#)) and *The International Dietetics and Nutrition Terminology (IDNT) Reference Manual*¹⁶⁻¹⁸ in conjunction with the Physical Activity Assessment Form to more thoroughly assess the patient's/client's:

- Past and current interests/knowledge/beliefs and attitudes toward physical activity.
- Obstacles to physical activity.
- Interest in education on physical activity.

Fitness Assessment. Some patients/clients may come to the RD appointment with results of a fitness assessment and a specific fitness plan, but most will not. Many people benefit from a fitness assessment and subsequent fitness plan to help them begin or enhance their current fitness at an appropriate level for them. The fitness assessment is not a vital component to physical activity guidance for patients who are cleared for independent activity either by their physician or based on their PAR-Q. Certified fitness professionals whose fitness certification programs are accredited by NCCA may perform some or all of the following physical fitness assessments on a patient/client:

- Cardiorespiratory fitness (per fitness or exercise certification scope of practice; i.e., three minute step test, or sub-maximal and maximal protocol utilizing a treadmill or cycle ergometer)
- Musculoskeletal strength and endurance
- Flexibility
- Balance.

Note that unless the RD has attained the appropriate fitness or exercise-related certification or credentials ([see Appendix I](#)) to conduct the physical fitness assessments listed above, the RD is not qualified to conduct these assessments. Lacking the necessary fitness or exercise credentials, the RD needs to refer the patient/client to an appropriately credentialed fitness or exercise professional for physical fitness assessment.

EIM Step One: Current Exercise Habits. Review the patient's/client's responses to Step One: Current Exercise Habits in the Physical Activity Assessment Form. Determine whether or not the patient/client is meeting the current recommendations from the 2008 Physical Activity Guidelines for Americans (see page 11 & [Appendix M](#) for summary).²

Is the patient/client currently exercising?

If **YES**, go to step two.

If **NO**:

If the patient/client is not participating in any health-enhancing physical activity, you may ask what is preventing them from participation and determine if **the patient/client is willing to begin modifying their lifestyle to include or increase physical activity.**

If **YES**, go to step two.

If **NO**, briefly discuss the benefits of physical activity with the patient/client, provide the educational handout, Moving More: What's In It For Me? ([Appendix C](#)), provide the appropriate flyer from the Your Prescription for Health Flyer Series ([Appendix E](#), <http://exerciseismedicine.org/YourPrescription.htm>) and encourage the patient/client to consider adding extra activity/steps to their day. Schedule a follow-up visit with the patient/client if the patient/client is ready to start a lifestyle modification program including nutrition and/or physical activity.

If **YES**, at follow-up, go to step two.

EIM Step Two: Physical Activity Readiness. The RD will review the responses the patient/client made on the Physical Activity Readiness Questionnaire (Step Two of the Physical Activity Assessment Form in [Appendix A](#), http://exerciseismedicine.org/documents/B_PAR-Q.pdf).

If the patient/client marked "YES" to any of the statements, the RD should ask the patient/client to provide the RD with documentation of physical activity clearance from their physician before discussing a change in their physical activity level.

A Physical Activity Clearance Form ([Appendix K](#)) is provided to assist the RD in obtaining the physician's clearance. There are two methods the RD can use to obtain physical activity clearance for the patient/client to discuss changes in their activity level per the 2008 Physical Activity Guidelines for Americans:

1. Give the patient/client a copy of their PAR-Q *and* a copy of the Physical Activity Clearance Form. Instruct the patient/client to request that their physician complete the Physical Activity Clearance Form at their next visit. Request that they return the completed form to the RD.
2. Obtain written permission from the patient/client to send (via mail, email, or electronic medical record) their responses on the PAR-Q to their physician ([Appendix A](#), step two). If permission is granted, send the completed PAR-Q checklist and a copy of the Physical Activity Clearance Form directly to the physician with a cover page explaining the RD's request for medical clearance for their patient/client to change their physical activity level.

Increasing physical activity is a health-promoting behavior for most people, including those who have chronic diseases. There are three options provided on the Physical Activity Clearance Form that the physician can use to determine how they want the patient/client to participate in physical activity.

1. Exercise only while being monitored by a certified, clinical fitness professional in a clinical setting such as a hospital or rehabilitation facility.
2. Exercise only while being supervised by a certified, health fitness professional in a community-based setting such as a Y, fitness center or recreation center.
3. Independent, moderate-intensity physical activity with or without minimal restrictions.

If the patient/client marked “NO” to all of the statements on the PAR-Q, then it is *not* necessary for the patient/client to provide the RD with documentation from their physician regarding clearance to change their physical activity level. If they are cleared by their physician for independent exercise, despite existing health conditions (option number 3 above), the RD may provide general physical activity guidance using this toolkit, the resources from ACSM’s EIM and the 2008 Physical Activity Guidelines for Americans. Examples of how to proceed with a patient/client who has been cleared for independent physical activity and how to refer a patient/client to a certified fitness professional are provided in the Nutrition Intervention section of this toolkit.

EIM Step Three: Stages of Readiness to Change. Review the Stages of Readiness to Change questions on the Physical Activity Assessment Form, step 3, ([Appendix A](#)), and use this information to determine which of the five stages your patient/client is in to take appropriate action in the Diagnosis, Intervention, and Monitoring and Evaluation steps. Stages of Readiness to Change is a central concept of the Transtheoretical Model of Change¹⁹ and a key step in the EIM Preparticipation Screening Flowchart or algorithm ([Appendix D](#)).

2. Nutrition Diagnosis

Nutrition Diagnosis is the second step of the NCP. In this step the RD identifies and labels existing nutrition problem(s) that the RD is responsible for treating.⁶ Nutrition Diagnosis allows the RD to use critical judgment to assess and analyze information provided by the patient/client and identify a problem or issue that can be treated by the RD. As a result, patients/clients improve their health outcomes. As previously stated, physical activity is an integral component in the prevention and treatment of chronic and even acute diseases. Since the RD can be positioned to address physical activity as a complement to nutrition-related lifestyle changes, there are indications to use physical activity in PES statements (Problem/Diagnosis, Etiology, Signs and Symptoms).

A PES statement is used to describe a problem, its root cause, and the assessment data that provide evidence for the nutrition diagnosis.¹⁷ A diagnosis related to physical activity is typically made in coordination with one or more nutrition-related diagnoses.

The purpose of the Physical Activity Toolkit for RDs and for utilizing the EIM resources is to assist RDs in routinely providing safe and effective physical activity guidance to patients/clients, and in referring patients/clients to qualified, certified fitness professionals when personalized exercise prescription and / or supervised activity is of interest or recommended by the patient’s/client’s physician. Therefore we will highlight examples of PES statements as they relate to physical activity.

The format for a PES statement is given below:

Problem/Diagnosis related to etiology as evidenced by signs and symptoms.

The nutrition diagnosis is based on the RD's professional assessment of the findings in the Assessment step. The proper terminology and language concerning nutrition diagnoses that relate to physical activity are located in Nutrition Diagnosis Terminology within the *International Dietetics and Nutrition Terminology* (IDNT).¹⁷ Depending on a patient's/client's medical status, severity of their condition, personal goals and lifestyle issues, the RD may not have a physical activity-related nutrition diagnosis for each patient/client at each appointment.

The physical activity-related nutrition diagnosis may *relate to* the patient's/client's current physical activity and health status, physical activity clearance to begin exercise, stage of readiness to change, and any other information regarding knowledge, attitudes and beliefs about physical activity identified in the Assessment step. Lastly, the nutrition diagnosis is *evidenced by* biometric data, statements provided by the client, symptoms reported by the client or other similar indicators.

Sample PES statements related to physical activity could include:

- Overweight/obesity related to lack of physical activity as evidenced by body mass index (BMI) of 32.
- Physical inactivity related to severe joint pain secondary to arthritis as evidenced by patient stating that when he is active for more than 7 to 8 minutes his joints hurt.
- Underweight related to excessive exercise as evidenced by the patient's/client's stated exercise pattern of 2 ½ hours daily and measured weight of 110 which is a BMI of 16.
- Poor nutrition quality of life (NQOL) related to lack of self-efficacy for making change in current activity as evidenced by patient marking limited mobility secondary to rheumatoid arthritis on medical history.
- Not ready for diet/lifestyle change related to physical inactivity as evidenced by the patient's/client's answers to the Stages of Readiness to Change questions that she does not intend to become physically active in the next 6 months.

There are many nutrition diagnoses in the IDNT related to physical activity including the examples provided below along with their diagnosis codes:

- Physical inactivity (NB-2.1)
- Excessive physical activity (NB-2.2)
- Poor nutrition quality of life (NQOL) (NB-2.5)
- Self-monitoring deficit (NB-1.4)
- Not ready for diet/lifestyle change (NB-1.3)
- Inability or lack of desire to manage self-care (NB-2.3)

Keep in mind, the Nutrition Intervention (NCP-Step 3) and the Nutrition Monitoring and Evaluation (NCP-Step 4) must correspond to the RD's nutrition diagnosis for this process to be effective and valuable. Therefore, when making a nutrition diagnosis related to physical activity, it is important to use the nutrition diagnosis that most closely matches the *patient's/client's* stage of readiness to change when possible. Three examples are provided below with their diagnostic codes.

Precontemplation Stage

Physical inactivity (NB-2.1) related to lack of self-efficacy of making change as evidenced by patient/client comments that she is too tired to exercise.

Contemplation Stage

Physical inactivity (NB-2.1) related to lack of prior exposure to accurate information regarding physical activity as evidenced by inability to cite current public health guidelines.

Preparation Stage

Physical inactivity (NB-2.1) related to inability to recruit family or friends to accompany patient/client during physical activities as evidenced by patients/clients statements of physical activity level less than the 2008 Physical Activity Guidelines and confidence to participate in physical activity alone.

Physical inactivity is defined as follows in the 2008 Physical Activity Guidelines for Americans:

“Baseline activity refers to the light-intensity activities of daily life, such as standing, walking slowly and lifting lightweight objects. People vary in how much baseline activity they do. People who do only baseline activity are considered to be inactive.”²

It is important to remember that some activity is better than none, such as in the *Preparation Stage of Change*; however, to determine a patient/client as being in the *Action Stage*, they must be meeting the minimum recommendations of the 2008 Physical Activity Guidelines for Americans (See Appendix M).

In summary, the Nutrition Diagnosis step is a vital phase in the NCP because it allows the RD to use critical judgment to assess and analyze information provided by the patient/client and identify a problem or issue that can be used to help patients/clients improve their health outcomes. Depending on a patient's/client's medical status, severity of their condition, personal goals and lifestyle issues, the RD may not have a physical activity-related nutrition diagnosis for each patient/client at each encounter. However, in keeping with the EIM Initiative, physical activity should be addressed and reviewed at every visit with healthcare providers, including the RD.

3. Nutrition Intervention

Nutrition Intervention is the third step of the NCP. Once the RD has completed an assessment and identified a physical activity-related nutrition diagnosis, they are ready to help the patient/client decide if or how they want to incorporate physical activity as part of their intervention. The Academy defines the intervention step as:

“... purposely planned action(s) designed with the intent of changing a nutrition-related behavior, risk factor, environmental condition or aspect of health status. Nutrition intervention consists of two interrelated components: planning and intervention. The nutrition intervention is typically directed toward resolving the nutrition diagnosis or the nutrition etiology. Less often, it is directed at relieving signs and symptoms.”⁷

Using the Academy’s Evidence-Based Nutrition Practice Guidelines and other guidelines, the following steps are integral components of the intervention and implementation of the plan:

1. Prioritizing diagnoses
2. Determining client-focused expectations and resources
3. Defining and communicating the intervention plan and strategies.

In addition to the RD’s physical activity-related assessments and PES statement(s), the intervention should be guided by the nationally established guidelines for physical activity as described on pages 14-15.² As with nutrition-related intervention goals, it is vital that the physical activity intervention goals be patient/client-centered, patient/client-driven, and appropriate for the patient/client’s health status and stage of readiness to change. The examples below and the *Preparticipation Screening Flowchart* (Appendix D, http://exerciseismedicine.org/documents/A_Flowchart.pdf) will guide the RD as to the appropriate first step of intervention.

Following assessment of the patient’s/client’s stage of readiness to change, the RD may begin intervention with general discussion of benefits of physical activity for the patient’s/client’s desired health outcomes and goals. Aiding the patient/client in goal setting specifically related to increased activity utilizing the 2008 Physical Activity Guidelines for Americans is appropriate in most cases. Some patients/clients desire more specific guidance or routines or may not have been cleared for unsupervised activity. As part of coordination of care, referral to an appropriate certified fitness professional will be appropriate for patients who desire more specific guidance or routines, who are cleared only for *supervised* activity by their physician, or who exhibit conditions where the RD is uncomfortable discussing physical activity.

RDs who are appropriately certified as health and fitness professionals may use the following EIM resources that are specifically designed for health and fitness professionals to provide a more detailed intervention in line with their credentialed scope of practice.

- The Exercise is Medicine® Health and Fitness Professionals’ Action Guide⁵
- Action Guide Supplemental Materials
- Exercise is Medicine® Resources for Health and Fitness Professionals

These resources are available at <http://exerciseismedicine.org/fitpros.htm>.

The Academy Standards of Practice and Standards of Professional Performance for Registered Dietitians (Generalist, Specialty, Advanced) in Sports Dietetics is another resource for RDs who practice in the focus area of sports dietetics and those RDs who have fitness or other credentials that qualify them to incorporate individualized fitness and exercise interventions into their individual scope of practice.¹⁰

Nutrition Intervention Terminology. The nutrition intervention strategies related to physical activity incorporate education, counseling, and coordination of care and are categorized in the Intervention step as:

- Nutrition Education (E): Content (E-1.1 to E-1.7)
- Nutrition Education (E): Application (E-2.1 to E-2.3)
- Nutrition Counseling (C): Theoretical Basis/Approach (C-1.1 to C-1.5)
- Nutrition Counseling (C): Strategies (C-2.1 to C-2.11)
- Coordination of Other Care During Nutrition Care (RC-1.1 to RC 1.4)
- Discharge and Transfer of Nutrition Care to New Setting or Provider (RC-2.1 to RC-2.2)

A fourth intervention category, Food and/or Nutrient Delivery (ND), is unrelated to physical activity and should not be used with physical activity-related nutrition diagnosis. The RD can locate the specific intervention language and terminology that best fits with physical activity goals in the *IDNT*.¹⁶⁻¹⁸

Nutrition Intervention Options. In this section several physical activity-related Intervention options are described in more detail and a few examples of an Intervention plan are provided below.

Before proceeding, the RD should review:

- The PAR-Q in step two of the Physical Activity Assessment Form ([Appendix A](#)) and
- The Preparticipation Screening Flowchart ([Appendix D](#)).

Notice two major “arms” that flow from the first box labeled, “Administer PAR-Q or Equivalent.”

- One arm shows how the RD should proceed if the patient/client answered “YES” to any of the PAR-Q statements.
- The other arm shows how the RD should proceed if the patient/client answered “NO” to all of the statements.
 - It is appropriate for the RD to begin working with the patient/client on physical activity-related goals and plans to meet the 2008 Physical Activity Guidelines if the patient/client is interested in reducing risks and/or improving health rather than attaining fitness benefits and/or athletic performance improvement.
- The conditions under which the RD should refer a patient/client to a certified fitness professional are shown on both arms of the algorithm.

Education and Counseling

Nutrition Education. Education concerning physical activity should be tailored to the patient's/client's stage of readiness and the RD's qualifications for discussing physical activity. At the very least, the RD can play a vital role in initiating the education surrounding the benefits of physical activity with the client. See [Appendix E](#) for a list of Your Prescription for Health Flyer Series educational flyers (<http://exerciseismedicine.org/YourPrescription.htm>) that may be helpful in educating patients/clients about the benefits of physical activity with specific health conditions. Also in [Appendix F](#), a helpful Guide to Using Step Counters is provided for use with patients/clients. If the RD determines that the patient/client needs to be referred to a certified fitness professional for even basic guidance, the RD may still want to provide encouragement and information concerning the importance of physical activity at each visit by addressing and following up on the referral.

Nutrition Counseling. Nutrition counseling is a Nutrition Intervention step beyond basic and comprehensive education. In Nutrition Assessment, the RD may use the Transtheoretical Model of Change, Motivational Interviewing, and other counseling or coaching skills to gather information and apply a nutrition diagnosis.¹⁹⁻²⁰ In the Nutrition Intervention step, the RD may continue using these counseling models in addition to Cognitive-Behavioral Theory, Health Belief Model, Social Learning Theory, goal setting, self-monitoring, problem solving, social support, stress management, relapse prevention, and other theories and techniques that are vital to facilitate physical activity change between patient/client visits.¹⁶ Nutrition counseling around physical activity can be used by the RD for patients cleared for supervised or independent activity. If the patient/client is cleared for supervised activity, then the RD can provide nutrition counseling to the patient/client by following through with and following up on referral to a certified fitness professional.

The following is an example of possible strategies and resources the RD could employ while using the Transtheoretical Model of Change (Stages of Change Model)¹⁹ in nutrition counseling for patients cleared for independent activity.

- **Precontemplation** - Patient/client is not physically active and not intending to change.
 - Encourage patient/client to consider engaging in physical activity according to the 2008 Physical Activity Guidelines for Americans premise that some activity is better than none.
 - Educate about health and other benefits of regular physical activity.
 - Provide Moving More: What's In It for Me? handout ([Appendix C](#)).
 - Do not set goals/plans to engage in any physical activity.
- **Contemplation** - Patient/client is not active but is thinking about being more physically active.
 - Provide the Decisional Balance Sheet ([Appendix G](#), <http://www.myexerciseplan.com/assessment/DecisionalBalance.pdf>) to the patient/client to analyze the pros and cons of physical inactivity and the costs and benefits of beginning a physical activity program.
 - Recommend starting with small steps. Help the client set goals to start slowly.
 - Provide Starting an Exercise Program handout ([Appendix H](#), http://exerciseismedicine.org/documents/StartingExercise_8.pdf).
 - Provide a list of community physical activity resources.

- **Preparation** - Patient/client is engaged in some physical activity or exercises but not at the level recommended by the 2008 Physical Activity Guidelines for Americans or is intending to start physical activity soon.
 - Provide Starting an Exercise Program handout ([Appendix H, http://exerciseismedicine.org/documents/StartingExercise_8.pdf](http://exerciseismedicine.org/documents/StartingExercise_8.pdf)).
 - Recommend planning and self-monitoring strategies.
 - Provide a list of community physical activity resources.
 - Recommend the client to appropriate classes, fitness facilities, or qualified and certified fitness professional.
- **Action and Maintenance** - Patient/client is engaged in the recommended amount of physical activity as detailed in the 2008 Physical Activity Guidelines for Americans.²
 - Encourage continued physical activity or exercise.
 - Help the patient/client develop contingency plans for disruption of regular physical activity or exercise.
 - Revise the physical activity plan as needed to be consistent with the 2008 Physical Activity Guidelines for Americans.
 - Provide a list of community physical activity resources
 - Refer the patient/client to a qualified certified fitness professional for more variety and/or enhanced plans.
- **Goal Setting.** It is essential that RDs stay within their individual and legal, if applicable, scope of practice when setting goals. For example, an RD is qualified to provide physical activity guidance according to the 2008 Physical Activity Guidelines for Americans.³ However, be advised that RDs are legally responsible for practicing within their individual and legal, if applicable, scope of practice. Thus, the Academy encourages each RD to use the structured evaluation process provided by the SDPF to determine the degree to which they personally have the required knowledge, skills, and competencies to provide an activity or service, such as physical activity guidance, to their patients/clients. Refer to the SDPF resources, the Decision Analysis Tool ([Appendix O](#)) and Decision Analysis Tree ([Appendix P](#)) as tools to assess individual scope of practice. These tools are also available at: <http://www.eatright.org/HealthProfessionals/content.aspx?id=6867>. Additionally, note that it is inappropriate for an RD to prescribe exercise unless the RD is qualified to provide that service. Exercise prescription includes providing recommendations for frequency, intensity and duration of physical activity beyond that stated in the 2008 Physical Activity Guidelines for Americans.² For more information, see the section on Qualified Health, Fitness and Exercise Professionals on pages 28-30.

Once the RD identifies and prioritizes specific intervention strategies, he/she should facilitate goal setting with the patient/client using counseling skills either in conjunction with education or by itself. On the Academy's Evidence Analysis Library's (<http://www.eatright.org/sso/eal.aspx>) **Summary of the Evidence Related to Behavioral Strategies used in Nutrition Counseling, goal setting is defined as:**

"A collaborative activity between the client and the practitioner in which the client decides from all potential activity recommendations what changes he/she will expend effort to implement".²¹

Goals are set to aid the patient/client in obtaining the knowledge and developing the skills necessary to achieve the desired outcomes. Goals can be used as learning opportunities in the Monitoring and Evaluation stage to assess effective behavioral strategies and problem solve challenges to successes. Goals that are positive in nature may elicit better outcomes by encouraging a positive behavior versus a deprivation behavior. Using SMART goals more accurately defines the goal as an achievable behavior whose outcome can be measured.

- S - Specific
- M - Measurable
- A - Actionable
- R - Realistic
- T - Time-bound

The RD should document the goals the patient/client set and outcomes expected at the next visit as a result of the intervention. For the best outcomes, it is vital to use interventions and set goals appropriate to the patient's/client's stage of readiness to achieve desired outcomes. This important step will guide monitoring and evaluation tactics. In addition, the RD may use the Exercise Readiness and Recommendation form ([Appendix J](#)) as a reminder to record the goals and plans for their patient/client to take home.

For the patient/client who is cleared for independent activity, SMART goals the RD may help their patient/client define include:

- Utilizing a pedometer to increase the patients/clients daily steps.
- Adding 30 minutes of moderate-intensity activity, defined on page 23 of the 2008 Physical Activity Guidelines for Americans², each week to meet the recommended 150 minutes per week.

One example of a SMART goal is:

"I will add 10 minutes each day to my current weekly walking session on Monday, Wednesday and Thursday."

Another area that the patient/client may want to address is resistance training. Setting goals focused on resistance training as recommended in the 2008 Physical Activity Guidelines for Americans would be specific to 1-2 days per week, utilizing the major muscle groups, but would not include specific exercises unless the RD also is qualified as a certified fitness professional whose scope of practice includes exercise prescription. For more information, see the section on Qualified Health, Fitness or Exercise Professionals pages 28-30 and the 2008 Physical Activity Guidelines <http://www.health.gov/paguidelines>.²

Using the SMART format will allow the RD to determine if a physical activity-related nutrition diagnosis needs to be changed during the Monitoring and Evaluation phase (e.g. physical inactivity may no longer be a nutrition-related diagnosis).

Coordination of Care (Referral). The Coordination of Nutrition Care (RC) part of the Intervention step is especially important with regard to physical activity. As stated previously, the patient/client may need to be referred to a physician for medical clearance prior to initiating physical activity as determined by the PAR-Q ([Appendix A](#), step 2). The RD may need to communicate this with the patient/client as part of the coordination of care. Refer to the Preparticipation Screening Flowchart ([Appendix D](#)) as this document will guide the RD as to when it is appropriate to refer to an appropriately certified fitness professional. See below for more information on health and fitness or exercise certifications. The Preparticipation Screening Flowchart also provides guidance to which the RD should refer their patient/client based on their patients/client's health conditions, risk factors, or exercise preferences.

Examples of goals that the patient/client may choose can incorporate Coordination of Care and include:

- Taking their PARQ to their physician,
- Making an appointment with a qualified and certified fitness professional,
- Obtaining a fitness assessment,
- Developing an individualized exercise program by obtaining an exercise prescription from a qualified, certified fitness professional,
- Initiating the physical activity plan prescribed by the qualified, certified fitness professional.

Examples of SMART goals are given below:

- I will call 3 certified fitness professionals on the list provided by the RD on Wednesday.
- I will choose one of them to make an appointment with next week for consultation and an individualized exercise program.

Qualified Health and Fitness Professionals

Fitness and exercise certifications are not all equal. Some require a degree with supervised practice hours and a rigorous exam while others can be earned through a simple internet course. The RD should make the referral decision based on more than the term "certified" in the title. Rather, the referral decision should be based on the type of certification and level of supervision needed for the patient/client. The level of supervision is determined by whether or not the patient/client needed physical activity clearance from their physician. It is highly recommended that the RD refer patients only to fitness professionals who have been certified by an organization whose certification programs have been accredited through NCCA (see NCCA Accredited Certification Programs at <http://www.credentialingexcellence.org>, such as the American Council on Exercise (ACE), the American College of Sports Medicine (ACSM), the Cooper Institute, the National Academy of Sports Medicine (NASM), or the National Strength and Conditioning Association (NSCA). Web sites for these, and all fitness accredited program organizations, can be found in [Appendix I](#).

To be most effective in making referrals, have a list available for patients/clients of local qualified, certified fitness professionals. RDs can locate appropriately certified fitness professionals in their area by searching the individual organization's web site, determining the types of conditions the fitness professional is qualified with which to work, and interviewing the certified fitness professionals to ensure that they are comfortable and willing to work with the RD's population of patients/clients.

Alternatively, an RD may consider becoming a certified fitness professional through an organization whose certification programs have been accredited through the NCCA. Increasingly, RDs are earning certifications such as those described below to enhance their competency and expand their area of practice. RDs who are certified to prescribe exercise are advised to carry liability insurance appropriate for that role.

The following are examples of ACSM health fitness certifications and clinical certifications. Additional information on these and other ACSM certifications can be obtained at <http://www.ACSM.org/get-certified>.

- **Certified clinical fitness professionals** are equivalent to an ACSM-Certified Registered Clinical Exercise Physiologist® (RCEP) or ACSM-Certified Clinical Exercise Specialist® (CES). (Note: the CES is limited to providing services to clients with cardiovascular, pulmonary or metabolic disease challenges; the RCEP does not have such limitations.)
 - The ACSM CES® is proficient in:
 - Working with individuals with controlled cardiovascular pulmonary and/ or metabolic disease.
 - Performing clinical exercise testing and data interpretation.
 - Conducting and interpreting electrocardiograms (ECGs) at rest and during exercise.
 - The ACSM RCEP® is proficient in:
 - Working with individuals referred by or currently under the care of a physician.
 - Working with individuals with cardiovascular, pulmonary, metabolic, orthopedic/ musculoskeletal, neuromuscular and/or immunological/hematological disease.
 - Performing clinical exercise testing and data interpretation.
 - Developing complex exercise prescriptions and performing exercise counseling.
- **Certified health fitness professionals** are fitness professionals with a special populations-related certification that is equivalent to an ACSM-Certified Health Fitness Specialist (HFS) or either of the above certifications.
 - The ACSM-HFS is skilled in the following:
 - Conducting risk stratification.
 - Conducting physical fitness assessments and interpreting results.
 - Constructing appropriate exercise prescriptions for healthy adults and individuals with controlled conditions released for independent physical activity.
 - Motivating apparently healthy individuals with medically controlled diseases to adopt and maintain healthy lifestyle behaviors.
 - Motivating individuals to begin and continue with their healthy behaviors.

- **Certified fitness professionals** are fitness professionals who have certifications equivalent to an ACSM-Certified Personal TrainerSM (CPT) or any of the above certifications.
 - The ACSM Certified Personal TrainerSM is qualified to:
 - Develop and implement exercise programs for apparently healthy individuals or those who have medical clearance to exercise.
 - Using a variety of teaching techniques, the ACSM Certified Personal TrainerSM is proficient in:
 - Leading and demonstrating safe and effective methods of exercise by applying the fundamental principles of exercise science.
 - Writing appropriate exercise recommendations.
 - Motivating individuals to begin and to continue with their healthy behaviors.

Collaboration for Optimal Patient/Client Care

Often, the biggest challenge for patients/clients is obtaining appropriate referrals and resources. Since finding a qualified, certified fitness professional can be confusing for our patients/clients, it is important to assist in this process. Helping patients/clients find the most appropriate certified fitness professional for them may indeed get them started on a physical activity program in a timely manner. This service emphasizes the importance of teamwork among health professionals in providing optimal care for our patients/clients.

How detailed you wish to make your referral list is your choice. Keep in mind that your patient/client is most apt to follow your advice if you make it easy and convenient. Collaboration with other health-care professionals aids in achieving a unified and cohesive plan to maximize patient/client outcomes. These collaborations can often result in referrals back to the RD.

In addition to a referral list of different types of appropriately certified fitness professionals, developing a list of physical activity resources available in the local community may also be beneficial. The list may include items such as the following:

- Web sites that provide information on local events, such as www.active.com, or the local chamber of commerce
- Parks and recreation departments
- National and state parks in the RD's local area
- List of trails and hiking locations including their intensity ratings
- Local activity clubs (walking, biking, softball, basketball, dance, hiking, swimming, flag football, skiing, snowboarding, snowshoeing, ice skating, rock climbing, event-specific training, skill building, martial arts, etc.)
- Large community spaces (e.g., zoos, museums, shopping malls, aquariums) that serve other purposes but provide opportunities for walking
- Local and national fitness facilities that are appropriate for the patient/client and to whom you provide services. These may include facilities that specialize in enhanced athletic skills and athletic performance.

Collaboration and referral can be an inexpensive marketing strategy and can promote the role of the RD. Positive referrals can lead to partnerships whereby the RD and the fitness or exercise professional has exposure to each other's clientele. This is a benefit for business and a benefit for America's health.

In summary, the Nutrition Intervention must align with the Nutrition Diagnosis. Within the IDNT,¹⁷ the diagnostic terms will come from the Knowledge and Beliefs and/or Physical Activity and Function class of diagnostic terms within the Behavioral-Environmental domain. The Intervention will then come from the Nutrition Education, Nutrition Counseling and/or Coordination of Care Domain(s). Other considerations are the motivator(s) of the patient/client, the importance of exercise to them, their perceived benefits of physical activity, the perceived barriers of performing regular physical activity, and what brought them to you. Although this information should have been collected in the Nutrition Assessment phase, it is beneficial to reflect upon these issues in the Intervention phase.

4. Nutrition Monitoring and Evaluation

The fourth and final step in the NCP is Monitoring and Evaluation. This is a critical step because it:

"Identifies the amount of progress made and whether goals/expected outcomes are being met.

*Nutrition monitoring and evaluation identifies outcomes relevant to the nutrition diagnosis and intervention plans and goals."*¹⁴

The Nutrition Intervention is based on the diagnosis and etiology from the PES statement, as well as the client-driven goals and motivators for change. The goals and expected outcomes the RD stated in the Intervention step identify the indicators to measure at the follow-up visit. The Academy Evidence-Based Guides for Practice¹⁷ and other evidence-based sources are used for recommended times for follow-up, as well as recommended outcome indicators for various conditions. Depending on the goals set, this step may require communication with the qualified, certified fitness professional or the physician to whom the patient/client may have been referred.

To assess compliance and goal achievement with physical activity intervention, it is important to know what and how much physical activity a client has engaged in since the previous visit. Other indicators or outcomes that might be relevant to physical activity interventions include the following:

- Changes in Body Mass Index (BMI), lean body mass or fat free mass
- Current physical activity habits
- Readiness to change
- Self-image
- Self-efficacy
- Knowledge/beliefs/attitude

Further, in the Monitoring step, it is important to determine that the intervention strategy is still relevant to the values, motivator(s) and needs of the patient/client. New information is often presented by the patient/client at follow-up visits. The patient/client may indicate a move into a different stage of readiness, or changes to perceived consequences, risks, benefits or self-efficacy with minimal or no physical changes being evident.

The RD should evaluate the new information and consider whether or not a new Nutrition Diagnosis is needed. It is also a critical time to address challenges and obstacles and work with the patient/client on resolutions that are appropriate. This is a learning phase of intervention to identify strategies that work and those that do not work for the patient/client. The proper terminology used in the Nutrition Monitoring and Evaluation step can be found in the *IDNT*.¹⁶⁻¹⁸

Chapter 3

NCP Physical Activity Examples

Physical Activity Intervention Examples

The following are examples of physical activity interventions utilizing the NCP and PES statements. The emphasis in these examples is on physical activity. It is implied that the patients/clients described in these examples have been cleared for independent activity by the answers to their PAR-Q or by their physician and that physical activity-related diagnosis and intervention is one of the prioritized nutrition diagnoses and interventions appropriate in working with patients/clients with chronic and acute diseases. The letters and numbers in parenthesis refer to the IDNT¹⁷ diagnosis codes.

Additionally, assume that the RDs have used the SDPF resources, the Decision Analysis Tool (Appendix O) and Decision Analysis Tree (Appendix P) to assess their individual scope of practice and have determined that they possess the required knowledge, skills, and competencies to provide physical activity guidance, to patients/clients within their individual and legal, if applicable, scope of practice.

Examples demonstrating detailed use of NCP in physical activity.

Example 1: Adding Exercise for Weight Management and Improved Health Status.

The RD has an apparently healthy patient/client who is in the contemplation stage of change and whose main motivator for weight loss is improved health status to potentially increase his longevity and improve quality of life with his family. The RD previously wrote the PES statement "*Overweight/obesity related to lack of knowledge of proper energy balance as evidenced by sitting most of the day and energy intake exceeding needs with an inactive lifestyle.*" An intervention could include:

- Nutrition Education-Content, Other or related topics (E-1.6): Use the EIM handout appropriate for the benefits of exercise with their specific disease state or the prevention of the same and Exercising While Losing Weight flyer (Appendix E).
- Conduct patient/client-led discussion of pros and cons of exercise using the Decisional Balance Worksheet (Appendix G), to be completed by the patient/client prior to the follow-up visit.

- Conduct patient/client-led discussion in which patient/client identifies specific short-term goals and actions for attaining the public health recommendation of 150 minutes of moderate-intensity physical activity per week within 3 months.
- Collaboration/referral to other providers (RC-1.3): Refer to a certified fitness professional for fitness assessment and exercise prescription if client wishes to have a more detailed exercise regimen or if they wish to do vigorous-intensity physical activity.

Patient/client goals:

1. I will track actual physical activity against short-term plans and goals.
2. I will participate in 15 minutes of active play to include tag, jump rope, and hula hoop with my kids at least 3 days per week.
3. I will go to XYZ fitness facility (RC-2) and explore the offerings and cost of family membership.
4. I will complete the Decisional Balance Worksheet.
5. I will make an appointment with my RD in 2-4 weeks.

Expected outcome(s) by next session:

- Increased knowledge of personal pros and cons of physical activity
- Review of resources
- Review cost of family member fitness center membership.

Example 2: Weight Loss to Improve Mobility. The RD has a patient/client whose main motivator for weight loss is improved mobility to have improved quality of life when actively traveling. The patient/client is in the contemplation stage of change secondary to fear of injury, and for whom the RD has written the PES statement "*Physical inactivity related to severe joint pain secondary to obesity as evidenced by medical history.*" An intervention could include:

- Nutrition Education-Content, Other or related topics (E-1.6): Include use of EIM handouts: Exercising with Arthritis and Exercising While Losing Weight. (See [Appendix E](#)).
- Collaboration/referral to other providers (RC-1.3): Referral to a certified clinical fitness professional such as an ACSM Certified Clinical Exercise Specialist® (CES) or an ACSM Registered Clinical Exercise Physiologist® (RCEP). ([Appendix I](#))

Patient/client goals:

1. I will make an appointment with a certified clinical fitness professional from the list provided by my RD within 2-4 weeks.
1. I will make an appointment with my RD for follow-up on weight management in 2-4 weeks.

Expected outcome(s) by next session:

- Increased knowledge of how to be physically active with arthritis.
- At least one meeting with a certified clinical fitness professional.

Examples demonstrating follow-up intervention and monitoring/evaluation related to physical activity. *The following are examples of appropriate physical activity intervention for RDs to use with their patients/clients in providing general guidance in following the recommendations of the 2008 Physical Activity Guidelines for Americans. These examples of interventions and monitoring/evaluation presume a follow-up visit with assessment and diagnoses occurring during prior visits or in the event that the assessment and diagnoses was done by another RD or health practitioner (e.g., you, the RD may have been requested to perform the intervention or monitoring/evaluation step by the physician or nurse/practitioner).*

Example 3: *A healthy patient/client wants to prevent heart disease by improving lifestyle choices. He answered no to all questions on the PARQ and has been engaged in walking for 3 months, 45 minutes 3 days each week for 3 months.*

- The RD can discuss the 2008 Physical Activity Guidelines for Americans to explain that additional benefits may be obtained by increasing to 300 minutes of physical activity each week.
- The RD and patient/client can have a conversation about a realistic amount of physical activity that will fit into the patient's/client's schedule and set a goal for the amount decided.
- The RD can discuss incorporating resistance exercises into the physical activity regimen 1-2 days per week based on the 2008 Physical Activity Guidelines.
- The RD can assess and discuss physical activity goals and plans at subsequent visits.

Example 4: *A patient with a current BMI of 31 kg/m², type II diabetes, joint pain and physical activity clearance for unsupervised physical activity from her physician, has been seeing an RD for several months. On this visit, the patient/client announces she is ready to begin an exercise program and has saved enough money to join a fitness facility.*

- The RD can provide education on the 2008 Physical Activity Guidelines for Americans² and help the patient/client set a goal to begin being physically active during the next week.
- The RD can provide the patient/client a list of fitness facilities and certified fitness professionals who may be a good fit considering the patient's/client's needs.
- The RD can help the patient/client decide if an activity program, such as walking or biking (an activity of similar intensity to the patient's/client's interest) would complement her membership in the fitness facility to achieve the recommendations in the 2008 Physical Activity Guidelines for Americans.²
- The RD can discuss the importance of beginning a physical activity program slowly to avoid injury and maintain motivation.
- The RD can assess and discuss physical activity goals and plans at subsequent visits.

Monitoring and Evaluation Examples

The following are examples of appropriate physical activity Monitoring and Evaluation for RD's to use with their patients/clients in providing general guidance in following the recommendations of the 2008 Physical Activity Guidelines for Americans.

Example 1: Excessive Exercise. The RD has a patient/client whose main motivator for change is a desire to feel energized and at a "normal" weight. Along with several PES statements related to disordered eating patterns, the physical activity related PES statement is as follows: "Underweight related to excessive exercise as evidenced by patient/client comments." The nutrition intervention established included:

- 2-week follow up with the RD
- Planned scale back of exercise by 2 days per week
- Exercise journal to include perceived energy level on a 1-10 scale

The patient/client returns two weeks later and reports on scaled back exercise the first week by two days and the second week by one day and provides a detailed log including fears of weight gain. The patient/client reports daily weights as "normal" and clothes fit also as "normal".

The evaluation concludes the patient/client adhered to the intervention with a frequency of 50%, adhered to journaling and follow up appointment by 100%, but is still in need of intervention on knowledge and beliefs of exercise benefits and education surrounding over-use of exercise. A new Nutrition Intervention is established to refer the patient/client to a certified mental health practitioner whose practice includes assessment and counseling of individuals who exhibit disturbances in eating and physical activity.

Monitoring is established for two weeks.

Example 2: Healthy Eating to Reduce Cholesterol. The RD has a patient/client who initiated the RD visit for healthy eating to reduce cholesterol. The patient's/client's main motivator for change is a desire to feel energized and to manage stress. During the Assessment step of the NCP the patient/client revealed a high-fat food intake via a 4-day food diary, no physical activity above baseline and elevated LDL-cholesterol. The PES statement related to physical activity was "*Not ready for diet/lifestyle change related to lack of physical activity as evidenced by patient's/client's activity log.*"

The intervention established included:

- 2-week follow up with the RD.
- A comprehensive nutrition education on the evidence-based benefits of exercise and healthy eating for reducing cholesterol and heart health (provided at the previous visit).
- Walking 10 minutes during her lunch hour four days per week.
- Recording physical activity in a journal to include energy level on a 1-10 scale.

The patient/client returns in four weeks and reports walking 15 minutes the first two weeks and walking 20–30 minutes during lunch over the past two weeks. Detailed log shows notes revealing elevated energy levels and decreased stress as well as notations of improved sleep. The patient/client has returned for guidance on ways to incorporate more and various physical activities or exercise into her life.

The evaluation concludes the patient/client adhered to the intervention and increased knowledge and awareness of the individual benefits of physical activity and exercise. The patient is clearly in the preparation stage of change (See [Appendix J: Exercise Readiness and Recommendation](#)). Further intervention could include referral to a qualified, certified fitness professional, a variety of community based fitness and recreation activities (from the list of resources that the RD previously developed) and follow up in one month's time.

If patient/client has multiple nutrition diagnoses and will continue seeing the RD for these, the RD may still monitor PA levels and stage of change related to PA.

Summary

SUMMARY

It is clear that physical activity is beneficial for just about everybody – young and old, big and small, and well and ill. The 2008 Physical Activity Guidelines for Americans encourage adults to engage in at least 150 minutes of moderate-intensity or 75 minutes of vigorous-intensity physical activity a week. People with limitations to meeting this goal are encouraged to participate in as much physical activity as reasonably possible. Additional benefits, such as weight management, may occur with physical activity levels beyond the basic physical activity guidelines.

The Physical Activity Toolkit for RDs: Utilizing Resources of Exercise is Medicine® was designed in collaboration with the ACSM's Exercise is Medicine® Initiative and incorporates the Nutrition Care Process to assist RDs in providing safe and effective physical activity guidance to their patients/clients based on the recommendations provided in the 2008 Physical Activity Guidelines for Americans, and in referring patients/clients to qualified, certified fitness professionals when a personalized exercise prescription and/or supervised activity is requested or recommended by the patient's/client's physician. The Toolkit is also designed to help RDs become confident and comfortable when providing physical activity guidance, and to utilize appropriate resources for providing quality care when assessing and counseling their patients/clients about physical activity.

Since RDs are ethically and legally responsible for practicing within their individual and legal, if applicable, scope of practice, RDs are advised to use the evaluation process provided by the Scope of Dietetics Practice Framework, including the Decision Analysis Tree and/or Decision Analysis Tool to assess the degree to which they personally have the required knowledge, skills, and competence to provide physical activity guidance to their patients/clients. Using the 2008 Physical Activity Guidelines for Americans in coordination with their food and nutrition expertise, RDs are well positioned to assist patients/clients in integrating physical activity guidance with food and nutrition services in the promotion of health and well-being and in the prevention and treatment of chronic disease and other conditions that impact health.

RDs working in diverse settings (inpatient and outpatient clinical settings, private practice, wellness organizations/programs, community organizations, and public health) undoubtedly counsel a variety of patients/clients who would benefit from increasing their physical activity to meet their health goals. Thus, RDs are encouraged to obtain the necessary knowledge, skills and competencies to provide safe and effective physical activity guidance to patients/clients, and to gain confidence in referring patients/clients to qualified, certified health fitness or certified clinical fitness professionals when appropriate. Alternatively, an RD may consider becoming certified as a fitness professional through an organization whose certification programs have been accredited by the NCCA. RDs who have achieved fitness certifications, including being certified to prescribe exercise, are advised to carry liability insurance appropriate for that role.

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Additional Recommended Reading and References

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Case Studies

The purpose of these case studies is to allow you to practice the application of the various elements of this toolkit to a client situations as realistically as possible. The cases are presented using a sample progress note that adheres to the elements of the Nutrition Care Process. There are 5 different cases:

- S.A. - Patient/client that is overweight, pages 41-45
- J.P. – Patient/client who has several CVD risk factors, pages 46-50
- K.T. - Patient/client who is interested in sports performance enhancement, pages 51-55
- M.S. - Patient/client that is obese, pages 56-60
- J.R. - Patient/client with type 2 diabetes, pages 61-65

Case Set-up

This is your first visit with the patient/client. You have already spent about 30 minutes establishing rapport, taking a 24-hour recall and analyzing the recall data using an online dietary analysis system, and completing most of the Nutrition Assessment step.

Case Tasks

Use the progress note, your professional experience, what you have learned in this workshop, and your clinical judgment to complete the following tasks. *Although there will be additional diagnoses, interventions, and monitoring and evaluation related to nutrition, the focus of these case studies is the component of intervention related to physical activity guidance.*

Case Disclaimers

Note: The disclaimers in the subsequent two paragraphs apply to each of the following case studies. If you are unfamiliar with the components, terminology and formatting of the Nutrition Care Process, or the Scope of Dietetics Practice Framework, take this opportunity to learn more about them.

Scope of Practice

RDs are ethically and legally responsible for practicing within their individual and legal, if applicable, scope of practice. The Academy encourages RDs to use the evaluation process provided by the Scope of Dietetics Practice Framework, including the Decision Analysis Tree and/or Decision Analysis Tool (<http://www.eatright.org/HealthProfessionals/content.aspx?id=6867>) to assess the degree to which they personally have the required knowledge, skills, and competence to provide physical activity guidance to patients/clients settings and circumstances.

The focus of these case studies is physical activity, therefore Diagnosis, Intervention, and Monitoring and Evaluation related to nutritional status are not included. However there would be at least one nutrition-related Diagnosis, Intervention, and Monitoring and Evaluation prioritized with the physical activity-related Diagnosis, Intervention, and Monitoring and Evaluation.

Nutrition Diagnosis Step:

1. Identify which of the physical activity-related nutrition diagnosis labels apply to the patient/client. Pay close attention to the information provided in the Assessment section.
2. For each diagnosis label you select, write one or more nutrition diagnosis statements using the PES format (Problem, Etiology, Signs and Symptoms). That is, "*Diagnosis label (problem area) related to etiology (cause or contributing risk factor) as evidence by signs and symptoms (defining characteristics).*"

For example:

"Physical inactivity related to severe joint pain secondary to obesity as evidenced by patient/client's reported use of motorized cart when shopping."

Nutrition Intervention Step:

1. You may identify more than one diagnosis. If so, prioritize your diagnoses based on the opportunity for physical activity guidance. Then select specific intervention strategies that are focused on the etiologies of the problems you identified earlier. The sample Progress Note shows the nutrition interventions (from the Academy's *International Dietetics and Nutrition Terminology (IDNT) Reference Manual, Third Edition*) that are most relevant to physical activity interventions.
2. Determine the goal and expected outcomes, amount of change (if applicable) and timeline for each intervention strategy you select. Consider biochemical, anthropometric, physical, and/or food and nutrition goals/outcomes or indicators that you would expect to occur before the next visit.
3. Remember, referral to a certified fitness professional is considered an intervention.

Nutrition Monitoring and Evaluation Step:

1. Identify how you are planning to follow-up with the patient.

Appendix N contains sample progress notes for each case study presented.

Initial Progress Note

Name: S.A. **MR#** 8912 **Date:** 9/24/2011 **DOB:** 10.08.57 **Age:** 54
Referring physician: T. Smith

Disclaimer: Read disclaimers for this case found at the beginning of the case studies.

Nutrition Assessment

Client History

- S.A. has a history of excess weight for 25+ years and previously was diagnosed with binge eating disorder NOS. Patient has utilized professional services of a Registered Dietitian (RD) and medically supervised weight loss program enlisting a MD & RD to aid lifestyle change and change relationship with food.
- Client suffers from clinical depression and regularly sees a certified mental health professional for treatment. She is retired, although volunteers frequently. She has been married for 27 years; she lives with her husband live in an upscale retirement community. Her husband recently overcame a bout of illness, initially thought to be recurrence of pancreatic cancer, resulting in increased stress for the client.
- Although patient/client has been overweight or obese her entire adult life, she has been physically active, with a preference for running to maintain health and weight. She has completed numerous half-marathons and a full marathon in 2010. In April 2010, the client injured her back, fracturing several lumbar vertebrae, stabilization fusion L5/S1 with recommendation to stop running. The injury is healed, but recommendation to avoid running currently remains. She states that when she runs, she can control “everything” including eating. She maintains a detailed diet journal and records caloric intake as well. She has followed the MD advice, but her weight is steadily increasing with decreased intensity of training.

Food/ Nutrition-Related History

Based on 24-hour recall:

Energy intake: <u>1450</u> kcal/day	% kcal from fat: 22% kcal from CHO: 48% kcal from PRO: 30%
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Physical Activity:

- Not currently physically active
- Physically active as follows:

Type of Physical Activity	walk	Swim	Resistance			
Number of days/week	1-2	1-2	2			
Minutes per day	30	30	Varies			
Total minutes per week	60 max	60 max	Varies			
Intensity (low, moderate, high)	Low/mod	Low/mod	Moderate			

Meeting current Physical Activity Guidelines: Yes No

(At least 150 minutes of moderate-intensity *or* 75 minutes of vigorous-intensity physical activity per week *or* combination of moderate and vigorous-intensity **and** 2 days per week muscle-strengthening activities)

Sedentary time per day (e.g. sitting at the computer, desk, etc.): 7 hours

Physical Activity Clearance for independent exercise:

- Yes
- No
- Pending clearance from physician

Stage of Readiness to Change Physical Activity Level:

- Pre-contemplation (not thinking about being physically active)
- Contemplation (thinking about being active; not doing any physical activity)
- Preparation (intending to change soon or doing some physical activity)
- Action (meeting the Physical Activity Guidelines but for less than 6 months)
- Maintenance (meeting the Physical Activity Guidelines for more than 6 months)

Biochemical, Medical Tests, and Procedures

Blood was drawn at 7:30 a.m. in the fasting state.

Lipid Profile/pertinent labs	Reference	Date:8.4.08	Date:2.19.09	Date:4.29.10	Date:7.28.11
Total Cholesterol (mg/dL)	<200	211.2	180	207	212
LDL <input checked="" type="checkbox"/> calculated <input type="checkbox"/> direct (mg/dL)	<130	101	68	111	122
HDL (mg/dL)	>40	66	99	89	76
TG (mg/dL)	<150	213	67	36	69
Glucose (mg/dL)	<126	107	96	122	100
HbA1c (%)	<6	—	—	—	—
Systolic blood pressure (mmHg)	<120	147	132	140	117
Diastolic blood pressure (mmHg)	<80	71	75	78	70
Other:					

Energy Balance:

Resting Metabolic Rate (RMR) 1300 kcal/day (measured)

Total Energy Expenditure (TEE) 1690 kcal/day (RMR x Physical Activity Level)

Anthropometric Measurements

Ht. 62.5 in. Wt. 165 lbs. BMI 29.7 (kg/m²) WC 28 (inches)

Weight History:

Date	8/4/08	1/2/09	2/22/09	4/29/10	7/28/11
Weight	211.1	152	140	155	165
BMI	41.2	29.6	27.3	27.8	29.6

Nutrition-focused Physical Findings

Client appears fit, somewhat somber expression, affect is diminished. Patient expresses that she is hungry constantly, but ‘won’t give in’. She has a somewhat desperate tone; confidence to maintain weight without ‘drastic’ measures is low.

Nutrition Diagnosis

The following are nutrition and physical activity-related diagnoses. You are not limited to using these diagnoses. Prioritize your diagnoses.

- NB-1.1 Food- and nutrition-related knowledge deficit
- NB-1.3 Not ready for diet/lifestyle change
- NB-1.4 Self-monitoring deficit
- NB-1.5 Disordered eating pattern
- NB-2.1 Physical inactivity
- NB-2.2 Excessive physical activity
- NB-2.3 Inability or lack of desire to manage self-care
- NB-2.5 Poor nutrition quality of life (NQOL)
- NC-3.1 Underweight
- NC-3.3 Overweight/obesity
- Other: _____

Nutrition Diagnosis Statements:

Nutrition diagnosis (problem), related to *etiology* as evidenced by *Signs/Symptoms*:

Diagnosis By	Related To	As Evidence
_____	_____	_____
_____	_____	_____
_____	_____	_____

Nutrition Intervention

Categories of Nutrition Interventions:

Food and/or Nutrient Delivery

(not applicable for physical activity-related interventions)

Nutrition Education

- Nutrition Education- Content (E-1.1-1.7)
- Nutrition Education- Application (E-2.1-2.3)

Nutrition Counseling

- Theoretical Basis/Approach (C-1.1-1.5)
- Strategies (C-2.1-2.11)

Coordination of Nutrition Care

- Coordination of Other Care During Nutrition Care (RC-1.1-1.4)
- Discharge and Transfer of Nutrition Care to a New Setting or Provider (RC-2.1-2.2)

Intervention #1: _____

Goals/Expected Outcome: _____

Intervention #2: _____

Goals/Expected Outcome: _____

Intervention #3: _____

Goals/Expected Outcome: _____

Educational Materials:

- Moving More: What's In It for Me?
- Decisional Balance worksheet
- ACSM Prescription for Health Flyer(s): _____
- Guide to Using Step Counters
- Starting and Exercise Program
- Other: _____

Monitoring and Evaluation

- Recommend f/u with RD in _____ week(s) month(s) PRN: _____
- Recommend f/u with a certified fitness professional
- Physical activity (FH-7.3.1-FH-7.3.11)
 - Consistency (FH-7.3.2)
 - Frequency (FH-7.3.3)
 - Duration (FH-7.3.4)
 - Intensity (FH-7.3.5)
 - Type of physical activity (FH-7.3.6)
 - Strength (FH-7.3.8)
 - TV/screen time (FH-7.3.8)
 - Other sedentary activity time (FH-7.3.9)
- Estimated energy needs (CS-1.1.1-CS-1.1.2)
- Ideal/reference body weight (IBW) (CS-5.1.1)
- Recommended body mass index (BMI) (CS-5.1.2)

Initial Progress Note

Name: J.P. MR# 8915 Date: 9/24/2011 DOB: 02/25/1969 Age: 42
 Referring physician: T. Smith

Disclaimer: Read disclaimers for this case found at the beginning of the case studies.

Nutrition Assessment

Client History

- J.P. is a 42 year old male who wants to make lifestyle changes. He attended a worksite employee health fair and found that his blood pressure was high. After a follow-up visit with his physician, he also learned that his blood lipids were abnormal.
- Both of his grandfathers died of heart attacks in their late 60s. Both grandfathers were “meat and potatoes” folks and were physically inactive, and one grandfather also smoked. J.P. has been reading a lot and learned that losing weight and exercise may help him reduce his risk of developing CVD.
- J.P. is an accountant and has a very sedentary job. He has not been physically active since high school and wants to begin a “diet” and exercise program. He has been watching the reality TV show on weight loss and likes the idea of making those types of fitness gains in a short time. He has seen on the show that problems with blood lipids and blood pressure just “go away” if you work hard enough.
- J.P. does not like to cook and eats a majority of his meals at a restaurant/fast food establishment or takes food home from these places. He is thinking of having pre-packaged “weight loss meals” delivered to his home, but is worried about the taste of them.

Food/ Nutrition-Related History

Based on 24-hour recall:

Energy intake: <u>3150</u> kcal/day	% kcal from fat: 35%; % kcal from CHO: 50%; % kcal from PRO: 15%
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Physical Activity:

- Not currently physically active
- Physically active as follows:

Type of Physical Activity						
Number of days/week						
Minutes per day						
Total minutes per week						
Intensity (low, moderate, high)						

Meeting current Physical Activity Guidelines: Yes No

(at least 150 minutes of moderate-intensity *or* 75 minutes of vigorous-intensity physical activity per week *or* combination of moderate- and vigorous-intensity **and** 2 days per week muscle-strengthening activities)

Sedentary time per day (e.g. sitting at the computer, desk, etc.): 12 hours

Physical Activity Clearance for independent exercise:

- Yes
- No
- Pending clearance from physician

Stage of Readiness to Change Physical Activity Level:

- Precontemplation (not thinking about being physically active)
- Contemplation (thinking about being active; not doing any physical activity)
- Preparation (intending to change soon or doing some physical activity)
- Action (meeting the Physical Activity Guidelines but for less than 6 months)
- Maintenance (meeting the Physical Activity Guidelines for more than 6 months)

Biochemical, Medical Tests, and Procedures

Blood was drawn at 7:30 a.m. in the fasting state

Lipid Profile/pertinent labs	Reference	Date: 9/6/11	Date:	Date:	Date:
Total Cholesterol (mg/dL)	<200	278			
LDL <input checked="" type="checkbox"/> calculated <input type="checkbox"/> direct (mg/dL)	<130	239			
HDL (mg/dL)	>40	27			
TG (mg/dL)	<150	337			
Glucose (mg/dL)	<126	120			
HbA1c (%)	<6	unknown			
Systolic blood pressure (mmHg)	<120	170			
Diastolic blood pressure (mmHg)	<80	102			
Other:					

Energy Balance:

Resting Metabolic Rate (RMR) 2200 kcal/day

Total Energy Expenditure (TEE) 2860 kcal/day (RMR x Physical Activity Level)

Anthropometric Measurements

Ht. 5'10 in. Wt. 232 lbs. BMI 33.3 (kg/m²) WC 41.5 (inches) % body fat unknown

Weight History: Gained approximately 50 pounds over the last 10 years

Nutrition-focused Physical Findings

(Physical appearance, muscle and fat wasting, swallow function, appetite and affect)

All WNL except for elevated body weight.

Nutrition Diagnosis

The following are food and physical activity-related diagnoses. You are not limited to using these diagnoses. Prioritize your diagnoses.

- NB-1.1 Food-and nutrition-related knowledge deficit
- NB-1.3 Not ready for diet/lifestyle change
- NB-1.4 Self-monitoring deficit
- NB-1.5 Disordered eating pattern
- NB-2.1 Physical inactivity
- NB-2.2 Excessive physical activity
- NB-2.3 Inability or lack of desire to manage self-care
- NB-2.5 Poor nutrition quality of life (NQOL)
- NC-3.1 Underweight
- NC-3.3 Overweight/obesity
- Other: _____

Nutrition Diagnosis Statements:

Nutrition diagnosis (problem), related to etiology as evidenced by Signs/Symptoms:

Diagnosis By	Related To	As Evidence
_____	_____	_____
_____	_____	_____
_____	_____	_____

Nutrition Intervention

Categories of Nutrition Interventions:

Food and/or Nutrient Delivery

(not applicable for physical activity-related interventions)

Nutrition Education

- Nutrition Education- Content (E-1.1-1.7)
- Nutrition Education- Application (E-2.1-2.3)

Nutrition Counseling

- Theoretical Basis/Approach (C-1.1-1.5)
- Strategies (C-2.1-2.11)

Coordination of Nutrition Care

- Coordination of Other Care During Nutrition Care (RC-1.1-1.4)
- Discharge and Transfer of Nutrition Care to a New Setting or Provider (RC-2.1-2.2)

Intervention #1: _____

Goals/Expected Outcome: _____

Intervention #2: _____

Goals/Expected Outcome: _____

Intervention #3: _____

Goals/Expected Outcome: _____

Educational Materials:

- Moving More: What's In It for Me?
- Decisional Balance worksheet
- ACSM Prescription for Health Flyer(s): _____
- Guide to Using Step Counters
- Starting and Exercise Program
- Other: _____

Monitoring and Evaluation

- Recommend f/u with RD in _____ week(s) month(s) PRN: _____
- Recommend f/u with a certified fitness professional
- Physical activity (FH-7.3.1-FH-7.3.11)
 - Consistency (FH-7.3.2)
 - Frequency (FH-7.3.3)
 - Duration (FH-7.3.4)
 - Intensity (FH-7.3.5)
 - Type of physical activity (FH-7.3.6)
 - Strength (FH-7.3.8)
 - TV/screen time (FH-7.3.8)
 - Other sedentary activity time (FH-7.3.9)
- Estimated energy needs (CS-1.1.1-CS-1.1.2)
- Ideal/reference body weight (IBW) (CS-5.1.1)
- Recommended body mass index (BMI) (CS-5.1.2)

Initial Progress Note

Name: K.T. **MR#** 8914 **Date:** 9/24/2011 **DOB:** 05/11/1981 **Age:** 30
Referring physician: T. Smith

Disclaimer: Read disclaimers for this case found at the beginning of these case studies.

Nutrition Assessment

Client History

- K.T. is a 30 year old woman who has gained approximately 15 pounds since she started graduate school 3 years ago. She began running 7 months ago in order to lose weight and is now training for a half marathon that takes place in 3 months.
- K.T. completes 30 minutes of speed intervals on Mondays and Thursdays at 4:00 pm. She runs for 60 minutes on Tuesdays, Wednesdays, and Fridays at 4:00 pm. She completes her long runs (10 miles/2 hours) on Saturday mornings and rests on Sunday.
- K.T. recently began to really “count calories”. She eats breakfast every day (~500 kcals) since she heard this is the most important meal, and lunch between 11:00 and noon (~700 kcals). She is busy with homework in the evening after her run and usually eats a high protein “sports bar” (~300 kcals) because they are supposed to be a good post-workout snack and the chocolate/peanut butter flavored ones are such a treat.
- K.T. has noticed lately that her running seems to be getting more difficult. She thought training was supposed to make you more fit, but she is having trouble getting through those workouts.

Food/ Nutrition-Related History

Based on 24-hour recall:

Energy intake: <u>1500 kcal/day</u>	% kcal from fat: 35%; % kcal from CHO: 45%; % kcal from PRO: 20%
-------------------------------------	--

Physical Activity:

- Not currently physically active
- Physically active as follows:

Type of Physical Activity	Running	Strength Training				
Number of days/week	6	3				
Minutes per day	30 on speed days (twice per week); 60 on endurance days (3 days per week); 120 on long run day (one day per week)					
Total minutes per week	360	20 - 40				
Intensity (low, moderate, high)	Low on long run days; moderate on endurance days; high on speed days					

Meeting current Physical Activity Guidelines: Yes No

(at least 150 minutes of moderate-intensity or 75 minutes of vigorous-intensity physical activity per week or combination of moderate- and vigorous-intensity and 2 days/week strength exercises and 2 days per week muscle-strengthening activities)

Sedentary time per day (e.g. sitting at the computer, desk, etc.): 8 hours

Physical Activity Clearance for independent exercise:

- Yes
- No
- Pending clearance from physician

Stage of Readiness to Change Physical Activity Level:

- Pre-contemplation (not thinking about being physically active)
- Contemplation (thinking about being active; not doing any physical activity)
- Preparation (intending to change soon or doing some physical activity)
- Action (meeting the Physical Activity Guidelines but for less than 6 months)
- Maintenance (meeting the Physical Activity Guidelines for more than 6 months)

Biochemical, Medical Tests, and Procedures

Blood was drawn at 7:30 a.m. in the fasting state

Lipid Profile/pertinent labs	Reference	Date: 9/1/11	Date:	Date:	Date:
Total Cholesterol (mg/dL)	<200	NL			
LDL <input type="checkbox"/> calculated <input type="checkbox"/> direct (mg/dL)	<130	NL			
HDL (mg/dL)	>40	NL			
TG (mg/dL)	<150	NL			
Glucose (mg/dL)	<126	68			
HbA1c (%)	<6	NL			
Systolic blood pressure (mmHg)	<120	NL			
Diastolic blood pressure (mmHg)	<80	NL			
Other:					

Energy Balance:

Resting Metabolic Rate (RMR) 1437 kcal/day

Total Energy Expenditure (TEE) 2315 kcal/day (RMR x Physical Activity Level)

Anthropometric Measurements

Ht. 5'4 in. Wt. 145 lbs. BMI 25.1 (kg/m²) WC 31 (inches) % body fat 32 %

Weight History: Gained approximately 15 pounds since beginning graduate school 3 years ago. Fairly stable prior to that.

Nutrition-focused Physical Findings

Low energy intake.

Nutrition Diagnosis

The following are food and physical activity-related diagnoses. You are not limited to using these diagnoses. Prioritize your diagnoses.

- NB-1.1 Food-and nutrition-related knowledge deficit
- NB-1.3 Not ready for diet/lifestyle change
- NB-1.4 Self-monitoring deficit
- NB-1.5 Disordered eating pattern
- NB-2.1 Physical inactivity
- NB-2.2 Excessive physical activity
- NB-2.3 Inability or lack of desire to manage self-care
- NB-2.5 Poor nutrition quality of life (NQOL)
- NC-3.1 Underweight
- NC-3.3 Overweight/obesity
- Other: _____

Nutrition Diagnosis Statements:

Nutrition diagnosis (problem), related to etiology as evidenced by Signs/Symptoms:

Diagnosis By	Related To	As Evidence
_____	_____	_____
_____	_____	_____
_____	_____	_____

Nutrition Intervention

Categories of Nutrition Interventions:

Food and/or Nutrient Delivery

(not applicable for physical activity-related interventions)

Nutrition Education

- Nutrition Education- Content (E-1.1-1.7)
- Nutrition Education- Application (E-2.1-2.3)

Nutrition Counseling

- Theoretical Basis/Approach (C-1.1-1.5)
- Strategies (C-2.1-2.11)

Coordination of Nutrition Care

- Coordination of Other Care During Nutrition Care (RC-1.1-1.4)
- Discharge and Transfer of Nutrition Care to a New Setting or Provider (RC-2.1-2.2)

Intervention #1: _____

Goals/Expected Outcome: _____

Intervention #2: _____

Goals/Expected Outcome: _____

Intervention #3: _____

Goals/Expected Outcome: _____

Educational Materials:

- Moving More: What's In It for Me?
- Decisional Balance worksheet
- ACSM Prescription for Health Flyer(s): _____
- Guide to Using Step Counters
- Starting and Exercise Program
- Other: _____

Monitoring and Evaluation

- Recommend f/u with RD in _____ week(s) month(s) PRN: _____
- Recommend f/u with a certified fitness professional
- Physical activity (FH-7.3.1-FH-7.3.11)
 - Consistency (FH-7.3.2)
 - Frequency (FH-7.3.3)
 - Duration (FH-7.3.4)
 - Intensity (FH-7.3.5)
 - Type of physical activity (FH-7.3.6)
 - Strength (FH-7.3.8)
 - TV/screen time (FH-7.3.8)
 - Other sedentary activity time (FH-7.3.9)
- Estimated energy needs (CS-1.1.1-CS-1.1.2)
- Ideal/reference body weight (IBW) (CS-5.1.1)
- Recommended body mass index (BMI) (CS-5.1.2)

Initial Progress Note

Name: M.S. **MR#** 8911 **Date:** 9/24/2011 **DOB:** 08.24.68 **Age:** 43
Referring physician: T. Smith

Disclaimer: Read disclaimers for this case found at the beginning of these case studies.

Nutrition Assessment

Client History

- M.S. has a history since age 13 of ulcerative colitis, s/p ileostomy & pouch, lumbar DJD, cervical spondylosis, hypercholesterolemia- resolved with dietary intervention s/p lap band surgery 6/09; pernicious anemia; possible bipolar d/o; s/p panniculectomy 6/10; MVC (motorcycle) 3/8/11; fx tibia with rod stability, fx navicular.
- Client began psycho-social therapy after achieving maximal weight loss. Depakote and Topamax prescribed s/p dx bipolar d/o ~8/10. Changed therapist in 9/11- meds changed and patient now expresses renewed interest in his structured health, but in a 'normal' way.
- Client reports minimal family history of obesity. He is on disability secondary to back issues and has a supportive partner. Client states that initially pre and s/p lap band surgery he was very focused and maintained a very rigid pattern of exercise for 1-2 hours daily, cooking all meals at home, and feeling empowered. Once medication initiated, patient states a decrease in structure and 'obsession' about regimen of nutrition and PA, however he maintained a fairly healthy lifestyle and activity level until his accident. He states that several weeks prior to his accident, he had just finished building a home gym. Patient verbalized frustration about weight gain at all medical appointments, as noted in medical records.
- Client has just finished and been released from physical therapy and patient is 'anxious' to get back to old routines. He states he feels a good weight is 190-220 pounds, the higher as he desires to build upper body muscle mass. Patient further states previous drive to reach 'normal BMI' but in reflection feels that the lower BMI wasn't 'healthy' for him and he experienced negative side effects such as dizziness.

Food/ Nutrition-Related History

Based on 24-hour recall:

Energy intake: <u>1500-1800 kcal/day</u>	% kcal from fat: 20; % kcal from CHO: 55; % kcal from PRO: 25
--	---

Client choices appropriate for post adjustable gastric banding at this time, but ~ 12 months choices were increased in fat content and decrease in fiber.

Physical Activity:

- Not currently physically active
- Physically active as follows:

Type of Physical Activity	Physical Therapy Routine	Stationary bike				
Number of days/week	2	4				
Minutes per day	30-45	15-20				
Total minutes per week	60-90	60-80				
Intensity (low, moderate, high)	Low/mod	Low				

Meeting current Physical Activity Guidelines: Yes No

(at least 150 minutes of moderate-intensity or 75 minutes of vigorous-intensity physical activity per week *or* combination of moderate- and vigorous-intensity **and** 2 days per week muscle-strengthening activities)

Sedentary time per day (e.g. sitting at the computer, desk, etc.): 10 hours

Prior to MVC, patient very active daily, sitting only ~ 3-4 hours.

Physical Activity Clearance for independent exercise:

- Yes
- No
- Pending clearance from physician

Stage of Readiness to Change Physical Activity Level:

- Pre-contemplation (not thinking about being physically active)
- Contemplation (thinking about being active; not doing any physical activity)
- Preparation (intending to change soon or doing some physical activity)
- Action (meeting the Physical Activity Guidelines but for less than 6 months)
- Maintenance (meeting the Physical Activity Guidelines for more than 6 months)

Biochemical, Medical Tests, and Procedures

Blood was drawn at 7:30 a.m. in the fasting state

Lipid Profile/pertinent labs	Reference	Date: 5/7/09	Date: 2/15/10	Date: 6/17/10	Date: 8/14/10	Date: 8/11/11
Total Cholesterol (mg/dL)	<200	251	128			
LDL <input type="checkbox"/> calculated <input type="checkbox"/> direct (mg/dL)	<130	138	53			
HDL (mg/dL)	>40	44	47			
TG (mg/dL)	<150	223	139			
Glucose (mg/dL)	<126	122	105	98		
HbA1c (%)	<6					
Systolic blood pressure (mmHg)	<120	145		140		
Diastolic blood pressure (mmHg)	<80	82		76		
Other:Vit B12 pg/mL	180-900	145			232	315

Energy Balance:

Resting Metabolic Rate (RMR) 1700 kcal/day

Total Energy Expenditure (TEE) 2200 kcal/day (RMR x Physical Activity Level)

Anthropometric Measurements

Ht. 74 in. Wt. 250.9 lbs. BMI 32.2 (kg/m²) WC 38 (inches)

Weight History:

Date	5/03/09	6/11/09	9/26/09	2/21/10	5/13/10	6/04/10	8/27/10	10/16/10	2/24/11	8/31/11
Weight	324.9	304.92	225.3	181	188.0	191	199.0	232.9	240.0	262.9
BMI	44.2	41.4	30.2	23.9	24.1	25.9	27.2	33.5	31.7	35.7

Nutrition-focused Physical Finding

M.S. expresses positive feeling of appropriate lap band adjustment, and medical record indicates appropriate restriction from fluoroscopy. He appears healthy, yet overweight; he walks with limp. He maintains good eye contact and is open and candid. Client displays normal affect, expressing high motivation and plans to reinstate previous/ post- surgery lifestyle to return to lower weight. He expresses hope that the change in medication (not sure of name and not in medical record) will help him lose weight gained after beginning previous Topamax and Depakote. Patient is animated and engaged.

Nutrition Diagnosis

The following are nutrition and physical activity-related diagnoses. You are not limited to using these diagnoses. Prioritize your diagnoses.

- NB-1.1 Food- and nutrition-related knowledge deficit
- NB-1.3 Not ready for diet/lifestyle change
- NB-1.4 Self-monitoring deficit
- NB-1.5 Disordered eating pattern
- NB-2.1 Physical inactivity
- NB-2.2 Excessive physical activity
- NB-2.3 Inability or lack of desire to manage self-care
- NB-2.5 Poor nutrition quality of life (NQOL)
- NC-3.1 Underweight
- NC-3.3 Overweight/obesity
- Other: _____

Nutrition Diagnosis Statements:

Nutrition diagnosis (problem), related to *etiology* as evidenced by *Signs/Symptoms*:

Diagnosis By	Related To	As Evidence
_____	_____	_____
_____	_____	_____
_____	_____	_____

Nutrition Intervention

Categories of Nutrition Interventions:

Food and/or Nutrient Delivery
(not applicable for physical activity-related interventions)

Nutrition Education

- Nutrition Education- Content (E-1.1-1.7)
- Nutrition Education- Application (E-2.1-2.3)

Nutrition Counseling

- Theoretical Basis/Approach (C-1.1-1.5)
- Strategies (C-2.1-2.11)

Coordination of Nutrition Care

- Coordination of Other Care During Nutrition Care (RC-1.1-1.4)
- Discharge and Transfer of Nutrition Care to a New Setting or Provider (RC-2.1-2.2)

Intervention #1: _____

Goals/Expected Outcome: _____

Intervention #2: _____

Goals/Expected Outcome: _____

Intervention #3: _____

Goals/Expected Outcome: _____

Educational Materials:

- Moving More: What’s In It for Me?
- Decisional Balance worksheet
- ACSM Prescription for Health Flyer(s): _____
- Guide to Using Step Counters
- Starting and Exercise Program
- Other: _____

Monitoring and Evaluation

- Recommend f/u with RD in _____ week(s) month(s) PRN: _____
- Recommend f/u with a certified fitness professional
- Physical activity (FH-7.3.1-FH-7.3.11)
 - Consistency (FH-7.3.2)
 - Frequency (FH-7.3.3)
 - Duration (FH-7.3.4)
 - Intensity (FH-7.3.5)
 - Type of physical activity (FH-7.3.6)
 - Strength (FH-7.3.8)
 - TV/screen time (FH-7.3.8)
 - Other sedentary activity time (FH-7.3.9)
- Estimated energy needs (CS-1.1.1-CS-1.1.2)
- Ideal/reference body weight (IBW) (CS-5.1.1)
- Recommended body mass index (BMI) (CS-5.1.2)

Initial Progress Note

Name: J.R. **MR#** 8913 **Date:** 9/24/2011 **DOB:** 1.23.1963 **Age:** 48
Referring physician: T. Smith

Disclaimer: Read disclaimers for this case found at the beginning of the case studies.

Nutrition Assessment

Client History

- J.R. has been diagnosed with DM 2, HTN, obesity/ metabolic syndrome, severe dyslipidemia, severe hypertriglyceridemia and obstructive sleep apnea.
- Per med history, client suffers from depression and admits to a problem with alcohol to 'feel better'.
- Diabetes was diagnosed over 10 years ago. Client was initially treated with metformin but was transitioned to oral meds/insulin secondary to reported 20 pound weight gain. Until recently he took Glimepiride 4 mg/ daily (recently d/c secondary to weight gain)
- Current medications include: Hydrochlorothiazide-lisinipril 12.5 – 20 mg/ daily; lodipine 5 mg/ daily; metformin-sitagliptin 50mg/500mg daily; humolog 8 u; lantus 2 u and as directed; 500 mg fish oil capsule daily. Client checks BG 3-4 times/day; values have been in the range of 140 – 260 mg/dL over past month. Prior, BG was reported 240 -400 mg/dL. Client reports 2 weekends ago he went camping and ate healthy (less protein and more fiber/ fruits/ vegetables) and did not need to supplement insulin and most noteworthy BG were WNL.
- Patient had his feet examined at a recent visit to the endocrinologist and CDE and now signs of peripheral neuropathy were present. No diabetic retinopathy was found and he had small amounts of albumin in his urine.

Food/ Nutrition-Related History

Based on 24-hour recall:

Energy intake: <u>2800 kcal/day</u>	% kcal from fat: 30%; % kcal from CHO: 45%; % kcal from PRO: 25%
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Physical Activity:

- Not currently physically active
- Physically active as follows:

Type of Physical Activity	Hike					
Number of days/week	1					
Minutes per day	60					
Total minutes per week	60					
Intensity (low, moderate, high)	Mod/high					

Meeting current Physical Activity Guidelines: Yes No

(at least 150 minutes of moderate-intensity or 75 minutes of vigorous-intensity physical activity per week or combination of moderate- and vigorous-intensity **and** 2 days per week muscle-strengthening activities)

Sedentary time per day (e.g. sitting at the computer, desk, etc.): 7.5 hours

Physical Activity Clearance for independent exercise:

- Yes
- No
- Pending clearance from physician

Stage of Readiness to Change Physical Activity Level:

- Precontemplation (not thinking about being physically active)
- Contemplation (thinking about being active; not doing any physical activity)
- Preparation (intending to change soon or doing some physical activity)
- Action (meeting the Physical Activity Guidelines but for less than 6 months)
- Maintenance (meeting the Physical Activity Guidelines for more than 6 months)

Biochemical, Medical Tests, and Procedures

Blood was drawn at 7:30 a.m. in the fasting state

Lipid Profile/pertinent labs	Reference	Date:2.26.11	Date:5.28.11	Date:7.30.11	Date:
Total Cholesterol (mg/dL)	<200	316	198	175	
LDL <input type="checkbox"/> calculated <input type="checkbox"/> direct (mg/dL)	<130	—	Not avail-calc	148 mg/dl	
HDL (mg/dL)	>40	5	21	25	
TG (mg/dL)	<150	894	322	250	
Glucose (mg/dL)	<126		191	109	
HbA1c (%)	<6		7.1	6.0	
Systolic blood pressure (mmHg)	<120		120	118	
Diastolic blood pressure (mmHg)	<80		82	77	
Other:					

Energy Balance:

Resting Metabolic Rate (RMR) 2075 kcal/day

Total Energy Expenditure (TEE) 2698 kcal/day (RMR x Physical Activity Level)

Anthropometric Measurements

Ht. 70.5 in Wt. 254lbs BMI 36.1 (kg/m²) WC 42 (inches)

Weight History: Client weight has been high for 20 years. Was an athlete in high school, stayed active into young adulthood. Except for recent increase past medication, has been stable for ~ one year.

Nutrition-focused Physical Findings

WNL, obese, acanthosis nigricans.

Nutrition Diagnosis

The following are food and physical activity-related diagnoses. You are not limited to using these diagnoses. Prioritize your diagnoses.

- NB-1.1 Food- and nutrition-related knowledge deficit
- NB-1.3 Not ready for diet/lifestyle change
- NB-1.4 Self-monitoring deficit
- NB-1.5 Disordered eating pattern
- NB-2.1 Physical inactivity
- NB-2.2 Excessive physical activity
- NB-2.3 Inability or lack of desire to manage self-care
- NB-2.5 Poor nutrition quality of life (NQOL)
- NC-3.1 Underweight
- NC-3.3 Overweight/obesity
- Other: _____

Nutrition Diagnosis Statements:

Nutrition diagnosis (problem), related to etiology as evidenced by Signs/Symptoms:

Diagnosis By	Related To	As Evidence
_____	_____	_____
_____	_____	_____
_____	_____	_____

Nutrition Intervention

Categories of Nutrition Interventions:

Food and/or Nutrient Delivery

(not applicable for physical activity-related interventions)

Nutrition Education

- Nutrition Education- Content (E-1.1-1.7)
- Nutrition Education- Application (E-2.1-2.3)

Nutrition Counseling

- Theoretical Basis/Approach (C-1.1-1.5)
- Strategies (C-2.1-2.11)

Coordination of Nutrition Care

- Coordination of Other Care During Nutrition Care (RC-1.1-1.4)
- Discharge and Transfer of Nutrition Care to a New Setting or Provider (RC-2.1-2.2)

Intervention #1: _____

Goals/Expected Outcome: _____

Intervention #2: _____

Goals/Expected Outcome: _____

Intervention #3: _____

Goals/Expected Outcome: _____

Educational Materials:

- Moving More: What’s In It for Me?
- Decisional Balance worksheet
- ACSM Prescription for Health Flyer(s): _____
- Guide to Using Step Counters
- Starting and Exercise Program
- Other: _____

Monitoring and Evaluation

- Recommend f/u with RD in _____ week(s) month(s) PRN:
- Recommend f/u with a certified fitness professional
- Physical activity (FH-7.3.1-FH-7.3.11)
- Consistency (FH-7.3.2)
- Frequency (FH-7.3.3)
- Duration (FH-7.3.4)
- Intensity (FH-7.3.5)
- Type of physical activity (FH-7.3.6)
- Strength (FH-7.3.8)
- TV/screen time (FH-7.3.8)
- Other sedentary activity time (FH-7.3.9)
- Estimated energy needs (CS-1.1.1-CS-1.1.2)
- Ideal/reference body weight (IBW) (CS-5.1.1)
- Recommended body mass index (BMI) (CS-5.1.2)

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Appendix A

Physical Activity Assessment Form

Step One: Current Exercise Habits

1. Do you currently participate in regular physical activity?

_____ Yes _____ No (If no, go to question #3)

2. Describe your current physical activity habits by completing the table below.

- List all of the physical activities you do in a typical week in the top row.
- For each activity, list how many days each week you engage in the activity.
- On the days you do the activity, what are the total minutes in the day that you are involved in the activity?
- How hard do you perform the activity:
 - Light – equal to a strolling walk; easy to talk
 - Moderate – equal to a brisk walk; heart rate and breathing increases slightly; you can talk but could not sing
 - Vigorous – equal to a slow jog or more; heart rate and breathing increases significantly; can't talk or sing easily

Type of Physical Activity	Sample: Walking					
Number of days/week	3					
Minutes per day	15					
Total minutes per week	45					
Intensity	moderate					

3. How much time each day do you spend sitting, reclining, or napping? Include time sitting at a desk and in meetings, working on a computer, watching TV and movies, playing video games, and commuting. Do not count the time you spend sleeping during your usual sleep hours.

_____ hours per day

Step Two: Physical Activity Readiness Questionnaire



Physical Activity Readiness Questionnaire

Patient's Name: _____ DOB: _____ Date: _____

Health Care Provider's Name: _____

Please read the questions below carefully, and answer each one honestly. Please check YES or NO.

- Yes No Has your health care provider ever said that you have a heart condition and that you should only do physical activity recommended by a health care provider?
- Yes No Do you feel pain in your chest when you do physical activity?
- Yes No In the past month, have you had chest pain when you were not doing physical activity?
- Yes No Do you lose your balance because of dizziness or do you ever lose consciousness?
- Yes No Do you have a bone or joint problem (for example, back, knee or hip) that could be made worse by a change in your physical activity?
- Yes No Is your health care provider currently prescribing drugs (for example, water pills) for your blood pressure or heart condition?
- Yes No Do you know of any other reason why you should not do physical activity?

Excerpted from the Physical Activity Readiness Questionnaire (PAR-Q)© 2002.
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Step Three: Stages of Readiness to Change

Stage of Readiness to Change

Please choose the statement below that best describes your current physical activity:

- 1. I am not currently doing any physical activity and I do not intend to become more physically active. (I am in the Precontemplation stage.)
- 2. I am not currently doing any physical activity but I intend to start being more physically active in the near future. (I am in the Contemplation stage.)
- 3. I am doing some physical activity but I am not doing the amount described in the goal stated below. (I am in the Preparation stage.)
- 4. I am currently meeting the **physical activity goal** stated below but I have been doing it less than 6 months. (I am in the Action stage.)
- 5. I have been meeting the **physical activity goal** stated below for more than 6 months. (I am in the Maintenance stage.)

Weekly Physical Activity Goal

- 150 minutes of **moderate-intensity** physical activity **OR**
- 75 minutes of **vigorous-intensity** physical activity **OR**
- Combination of **moderate and vigorous** physical activity **AND**
- **Muscle-strengthening exercises** two or more days a week.

Moderate-intensity physical activity means working hard enough to raise your heart rate and break a sweat, yet still being able to carry on a conversation. Examples: brisk walking, ballroom dancing or general gardening.

Vigorous-intensity physical activity causes rapid breathing and a substantial increase in heart rate.

Example: jogging.

Muscle-strengthening exercises are activities such as lifting weights, using resistance bands, performing exercise that use body weight for resistance (e.g. push-ups, sit ups, lunges, mat Pilates), heavy gardening (e.g. digging, shoveling), and yoga.

(<http://exerciseismedicine.org/documents/PublicActionGuideLQ.pdf>)

Appendix B

Optional Assessment Activity

Physical Activity History

1. How physically active were you as a:

Child	Very	Somewhat	Slightly	Not at all	
Teenager	Very	Somewhat	Slightly	Not at all	
Young Adult	Very	Somewhat	Slightly	Not at all	NA
Middle age adult	Very	Somewhat	Slightly	Not at all	NA
Older adult	Very	Somewhat	Slightly	Not at all	NA

2. What physical activities, exercises, and/or sports did you like to do *in the past*?

3. What physical activities, exercises, and/or sports do you like to do *now*?

4. What benefit(s) would being more physically active provide for you?

5. What challenges get in the way of you being more physically active?

6. If time and skill were not a factor what physical activity would you enjoy doing?

7. What would you like to know about physical activity?

Appendix C

Moving More: What’s In It for Me?

Did You Know?

- Physical activity is powerful medicine (see list of health benefits below)
- Doing some activity is better than doing none.
- The goal is to do 150 minutes (2.5 hours) of moderate-intensity or 75 minutes of vigorous-intensity physical activity each week.
- You can reach your weekly activity goal by accumulating smaller 10 minute exercise segments.
- A brisk walk counts as moderate-intensity.

The following is a list of many of the health benefits adults can get from being physically active.

- | | |
|---|---|
| <input type="checkbox"/> Lower risk of early death | <input type="checkbox"/> Weight maintenance after weight loss |
| <input type="checkbox"/> Lower risk of heart disease | <input type="checkbox"/> Improved fitness |
| <input type="checkbox"/> Lower risk of stroke | <input type="checkbox"/> Prevention of falls |
| <input type="checkbox"/> Lower risk of high blood pressure | <input type="checkbox"/> Reduced depression |
| <input type="checkbox"/> Better blood cholesterol profile | <input type="checkbox"/> Better thinking ability |
| <input type="checkbox"/> Lower risk of type 2 diabetes | <input type="checkbox"/> Better functional health |
| <input type="checkbox"/> Lower risk of colon cancer | <input type="checkbox"/> Reduced abdominal obesity |
| <input type="checkbox"/> Lower risk of breast cancer | <input type="checkbox"/> Lower risk of hip fracture |
| <input type="checkbox"/> Lower risk of lung cancer | <input type="checkbox"/> Increased bone density |
| <input type="checkbox"/> Lower risk of endometrial cancer | <input type="checkbox"/> Improved immune function |
| <input type="checkbox"/> Prevention of weight gain | <input type="checkbox"/> Improved sleep quality |
| <input type="checkbox"/> Better management of many health conditions including diabetes and high blood pressure | |
| <input type="checkbox"/> Weight loss, particularly when combined with reduced calorie intake | |

Put a checkmark (✓) beside the health results that you think you could benefit from.

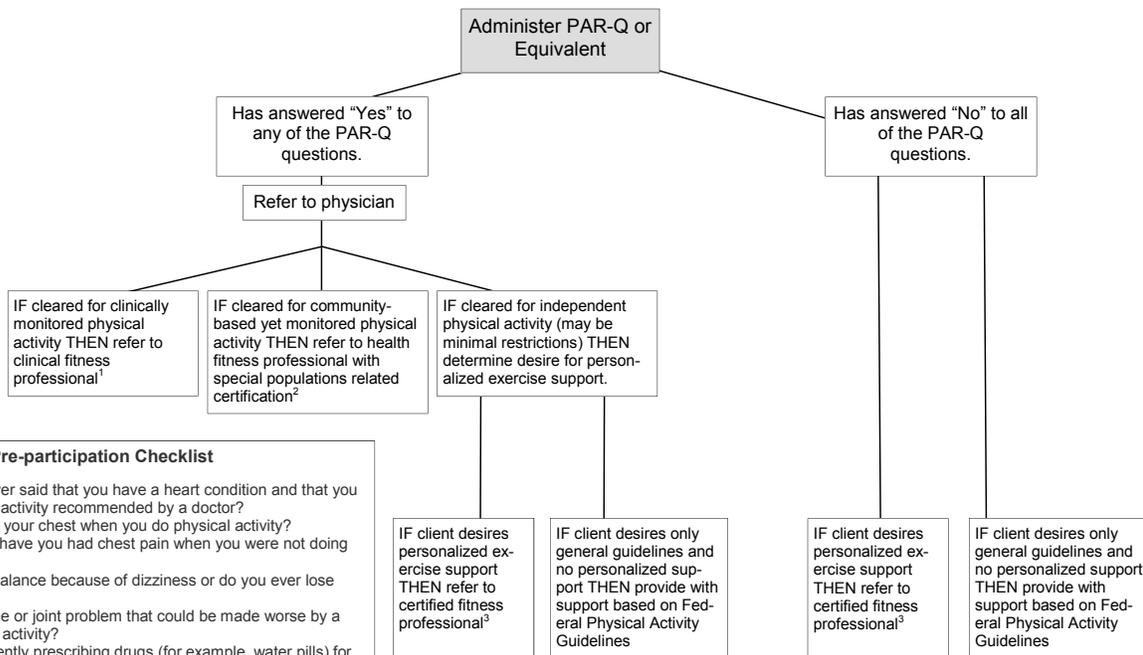
What are others ways that you think you might benefit from being moving more? Write your ideas here:

Appendix D

Preparticipation Flow Chart



Preparticipation Screening Flowchart



Pre-participation Checklist

1. Has your doctor ever said that you have a heart condition and that you should only do physical activity recommended by a doctor?
2. Do you feel pain in your chest when you do physical activity?
3. In the past month, have you had chest pain when you were not doing physical activity?
4. Do you lose your balance because of dizziness or do you ever lose consciousness?
5. Do you have a bone or joint problem that could be made worse by a change in your physical activity?
6. Is your doctor currently prescribing drugs (for example, water pills) for your blood pressure or heart condition?
7. Do you know of any other reason why you should not do physical activity?

Excerpted from the Physical Activity Readiness Questionnaire (PAR-Q) © 2002. Used with permission from the Canadian Society for Exercise Physiology

1 - A clinical fitness professional is equivalent to an ACSM-certified Registered Clinical Exercise Physiologist (RCEP) or ACSM-certified Clinical Exercise Specialist (CES) (Note: the CES is limited to providing services to clients with cardiovascular, pulmonary or metabolic disease challenges the RCEP does not have such limitations)

2 - A fitness professional with a special populations-related certification is equivalent to an ACSM-certified Health Fitness Specialist or either of the above certifications.

3 - A certified fitness professional is equivalent to an ACSM-certified Personal Trainer or any of the above certifications.

Appendix E

“Your Prescription for Health” Flyer Series

Information and recommendations for exercising safely with a variety of health conditions. This series is available for download at www.exerciseismedicine.org/YourPrescription.htm

- Exercising Following Cancer
- Exercising Following Coronary Artery Bypass Surgery
- Exercising Following a Heart Attack
- Exercising Following a Stroke
- Exercising While Losing Weight
- Exercising With Anemia
- Exercising With Arthritis
- Exercising With Cancer
- Exercising With Frailty
- Exercising With Hearing Loss
- Exercising With Hyperlipidemia
- Exercising With Hypertension
- Exercising With Lower Back Pain
- Exercising With Mental Retardation
- Exercising With Osteoporosis
- Exercising With a Pacemaker
- Exercising With Parkinson’s Disease
- Exercising With Peripheral Arterial Disease
- Exercising With a Psychiatric Disorder
- Exercising With Type 2 Diabetes
- Exercising With Valvular Heart Disease
- Exercising With Visual Impairment

Appendix F

Guide to Using Step Counters

Do you know how many steps you take a day? If you are not physically active, then you are taking too few steps. That means you are missing out on the many health benefits that exercise offers.

A simple device – a step counter – can help you get more active.

Step counters are popular because they are:

- Simple to use. Clipped to the waistband, a simple pendulum mechanism inside swings with every step. The movement is recorded, stored and displayed on a digital readout. All you have to do is periodically check the number and adjust your activity level to reach your desired daily goal.
- Relatively inexpensive. You can get an accurate step counter for between \$20–\$50. In general, the very inexpensive ones tend not to be accurate or durable.
- Effective. A recent study found that people who used step counters increased their activity by over 2,000 steps compared to their own baseline level or compared to people who did not wear a step counter. In addition, using step counters was associated with reductions in body mass index (BMI), an indicator of body fatness, and blood pressure.

Mechanical “Coach”

A step counter is effective because it acts like a “mini-motivator” by helping you set goals and track progress. Both strategies are critical for success in increasing physical activity.

Goal setting — Start by wearing the step counter for a week to determine a baseline daily average. Next, set a goal to increase the number of daily steps by 200–500 for the next week. For example, if your baseline average is 5,000 steps, increase it to 5,200–5,500 steps for the next seven days. Then gradually increase the weekly goals until you reach your overall step goal. For some people, a goal may be to increase daily steps by 2,000. For many, it may be to reach a total daily step goal of 8,000–10,000 steps. People who are trying to manage their weight may want to shoot for 12,000–15,000 steps per day.

Tracking — With a step counter, you don’t have to stop and record every bout and bit of exercise you do all day long. Simply clip on your step counter the first thing in the morning and wear it all day long, removing it just before going to bed. Since you wear it all day on a belt or waistband, it is a constant reminder to be active. Throughout the day, it’s easy to check to see how you are progressing toward your goal. You may be more motivated to seek out activities if you see you are falling behind.

Optimal Use

Although using a step counter is easy, here are a few practical suggestions to help you make the most of it. Please note that step counters will not work effectively when riding a bike, using an elliptical trainer, and of course, in the pool!

Choose a basic step counter. Many step counters (also known as pedometers) count steps and then convert the steps to miles walked and calories burned. These are not accurate. Devices that only count steps are also easier to use because you don't have to program them with your personal information. Also, look for a step counter that has a cover to protect the reset button from getting punched accidentally.

Skip the cheap step counters.

Inexpensive step counters tend to be inaccurate, fragile, wear out quickly, and not backed by a long-term warranty. Expect to pay \$20–\$50 for a good-quality step counter.

Put it on a leash. Step counters will occasionally fall off your waistband, so a leash prevents it from getting lost. One end of the leash attaches to the step counter and the other end usually has a clip to attach to a belt loop, waistband, or undergarments. If your step counter doesn't have a leash, simply attach a string and use a safety pin to clip it to your clothes.

Wear it properly. Most step counters operate best when placed on the waistband in line with the center of your kneecap. Make sure it is parallel to the ground. You may have to adjust it to find the right spot for you (see next bullet). If you are not wearing a waistband, you can attach it to your undergarments.

Test it out. Everyone has a different stride and gait. Clip your step counter on your waist according to the manufacturer's instructions, reset the counter to zero, and walk for 50 steps counting the number of steps in your head. Stop. Look at the number on your step counter. If it is within of 50 three steps (i.e., 47–53), then take note of the placement of the step counter on your waistband. This is where you should place it each morning. If the error is more than three steps, move the step counter slightly on your waist, re-zero, and repeat the test. Continue to adjust the step counter placement until you find a spot where the error is within three steps of 50. If you don't get satisfactory test run results, try putting it on the other side of your waist and replacing the battery. If these suggestions don't work, return it to the retailer to get a refund.

For more information:

Steps to Better Health by The Cooper Institute. This is a 48-page practical guide to optimizing step counter use. Available at www.cooperinst.org.

Manpo-kei: The Art and Science of Step Counting: How to be Naturally Active and Lose Weight! by Catrine Tudor-Locke. Victoria, British Columbia: Trafford Publishing. This is a delightful 96-page, easy-to-read book that provides in-depth coverage on using step counters to increase physical activity levels. 2003. Available at www.trafford.com.

Step Counter Sources

Step counters are not created equal. Several companies carry step counters that have been tested to be valid and accurate in scientific trials.

Adapted with permission. American Dietetic Association, Weight Management Dietetic Practice Group member newsletter, Spring 2004.

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Appendix G Decisional balance worksheet

DECISIONAL BALANCE

This tool is intended to assist you in:

- Thinking about the costs and benefits of changing your exercise behavior
- Determining what is involved in your decision to change your physical activity habits



Weighing Decisions

When people weigh any decision, they look at the costs and benefits of the choices they can make. Remember that having mixed feelings often occurs when making decisions. Especially a decision as challenging as integrating at least five weekly exercise sessions of 30 or more minutes into your already busy schedule.

Decisional Balancing

Most people actually change their exercise habits on their own. When they are asked what brought about the change, they often say they just “I just thought about it and decided it was time.” In some way, they evaluated the consequences of their on again off again activity patterns and the pros and cons of becoming more active. The pros for activity outweighed the cons and they made the decision to change. Weighing the pros and cons of changing happens all the time. Examples include changing jobs or deciding to move or get married.

You can do the same thing with the costs of changing on one side, and the benefits of changing on the other side. This process will help you look at the good things and less good things about becoming more active.

To change, the scale needs to tip so the costs outweigh the benefits. This is called Decisional Balancing.

Think about changing your exercise habits?

Ask yourself: What do I stand to lose and gain by continuing my inactivity or inconsistently active lifestyle? At some point, you may have received real benefits from regular exercise, such as more energy, relaxation, fun or stress reduction. However, because you are reading this, you are considering both the benefits and the costs.

Decision to Change Exercise Habits

One thing that helps people when thinking of changing is to list the benefits and costs of changing or continuing their current behavior. Below is an example of a Decision to Change Exercise.

	Regular Exercise	Inactivity
BENEFITS	<ul style="list-style-type: none"> • More energy • Look better • Feel better physically • More self confidence • Sleep better • More active with friends • Much more productive at home and work 	<ul style="list-style-type: none"> • One less thing to think about • More time to watch TV • More time to work
COSTS	<ul style="list-style-type: none"> • Have to buy shoes and other equipment • Could get injured • Can take away time with family 	<ul style="list-style-type: none"> • More easily stressed • More cranky • Weight gain • Feel embarrassed about how I look • I eat more and drink more • Can't be as active with the kids • Am worried about my health and longevity • Not as productive at work

The next page contains your chance to decide ►

Decisional balance worksheet page 2

Decision to Change Exercise: It's Your Turn

Fill in the costs and benefits of changing and compare them, and ask yourself if are the costs worth it.

	Regular Exercise	Inactivity
Benefits		
Costs		

It's Your Decision

Now list the most important reasons why you want to change. You are the one who must decide what it will take to tip the scale in favor of change.

Think About This

If someone offered you \$100,000 to comfortably integrate four exercise sessions into an otherwise busy work week, you would certainly do it. How would it be different if there was no payment involved?

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ACSM is pleased to partner with MyExercisePlan.com to bring you these resources. Visit MyExercisePlan.com and enter offer code ACSM20 to receive a 20-percent discount off a one-year membership to the site's full range of exercise support services.

Appendix H

Starting an Exercise Program

Starting an exercise program can sound like a daunting task, but just remember that your main goal is to boost your health by meeting the basic physical activity recommendations:

- 150 minutes of moderate-intensity physical activity per week or vigorous-intensity activity at least 75 minutes per week, and
- strength training at least twice per week.

For healthy adults under age 65 with no apparent chronic disease or conditions.

STEP 1 — Set aside time each day to exercise. Getting started can often be the most difficult part of any exercise routine. Scheduling exercise into your day and making it a priority will increase the chance of being successful. Teaming up with a physical activity buddy (your dog counts!), joining an exercise class, combining physical activity with a social event (such as dancing, a fund-raising walk, etc.) are simple ways to get started.

STEP 2 — Just Move! If you can't fit in a workout, take the stairs instead of the elevator, park farther away, stand whenever you can, bicycle to do errands, walk the dog. These small steps can add up to health benefits.

STEP 3 — Choose aerobic activities you enjoy. Walking is a great way to do moderate-intensity physical activity. Moderate-intensity physical activity means working hard enough to raise your heart rate and to cause you to breathe harder, yet still being able to carry on a conversation. Do other moderate- or vigorous-intensity exercise such as swimming, biking, or playing basketball with friends, to get your daily physical activity. If you need a variety of activities to stay motivated, combine a few that appeal to you. Physical activity can be accumulated through a variety of activities.

STEP 4 — Start with 10 to 15 minutes of aerobic exercise daily. Each week, add five minutes to your exercise routine **until you reach 30 minutes of moderate-intensity for a minimum of five days per week.** Alternately, you may do 25 minutes of vigorous-intensity exercise three days per week. The 30-minute recommendation is for the average healthy adult to maintain health and reduce the risk for chronic disease. To lose weight or maintain weight loss, 60 to 90 minutes per day of physical activity may be necessary.

STEP 4 — Add strength training into your routine. Do eight to 10 strength-training exercises, eight to 12 repetitions of each exercise twice a week. You can use dumbbells, resistance bands or your own body weight. If you are unsure how to do the exercises correctly, ask your dietitian for a referral to an exercise professional or other local exercise resources.

For adults over age 65 (or adults 50-64 with chronic conditions, such as arthritis)*

- Have a physical activity plan. Older adults or adults with chronic conditions should develop an activity plan with a health care professional to manage risks and take special needs into account. Aerobic, muscle-strengthening, and flexibility activities are critical for healthy aging. Follow Steps 1-4 above. Ask your dietitian for a referral to an exercise professional who specializes in working with older adults.
- If you are at risk of falling, do balance exercises. If you are unsure how to perform the exercises correctly, ask your dietitian for a referral to an exercise professional.

Questions or Concerns?

Health Care Professional: _____

Office phone/e-mail: _____

For more information, visit www.exerciseismedicine.org.

* If your health care professional has not cleared you for independent physical activity, you should exercise only under the supervision of a certified health and fitness professional. The American College of Sports Medicine has two groups of certified fitness professionals that could meet your needs. The ACSM Certified Clinical Exercise Specialist (CES) is certified to support those with heart disease, diabetes and lung disease. The ACSM Registered Clinical Exercise Physiologist (RCEP) is qualified to support patients with a wide range of health challenges. You may locate all ACSM-certified fitness professionals by using the ProFinder at www.acsm.org.

Appendix I



National Commission for Certifying Agencies

Accredited Certification Program

American College of Sports Medicine, www.acsm.org

American Council on Exercise, www.acefitness.org

The Cooper Institute, www.cooperinst.org

National Academy of Sports Medicine, www.nasm.org

National Strength and Conditioning Association, www.nasca-cc.org

Academy of Applied Personal Training Education, www.aapte.org

International Fitness Professionals Association, www.ifpa-fitness.com

National Athletic Trainer's Association Board of Certification, www.bocatc.org

National Council on Strength and Fitness, www.ncsf.org/certexam

National Exercise and Sports Trainers Association, www.nestacertified.com

National Exercise Trainers Association, www.netafit.org

National Federation of Professional Trainers, www.nfpt.com

Inclusion in this accredited association does not guarantee the certified fitness professional is certified to work with individuals that are not otherwise healthy. Check the certification program for information of types of patients/clients the trainer is certified to work with on fitness and exercise to ensure referral to an appropriate professional.

Appendix J

Exercise Readiness & Recommendation

Patient's Name: _____ DOB: _____ Date: _____

Health Care Provider's Name: _____ Signature: _____

Readiness to Change Physical Activity

- Not active and not intending to change.
- Not active but thinking about being more active.
- Intending to change physical activity soon or doing some exercise but not at recommended level*.
- Exercising at or above recommended level.*

Patient's Physical Activity-related Goals:

Type(s) of Activity: _____

Intensity** _____ (light, moderate, vigorous)

Duration: _____ (minutes/week)

Other: _____

Patient's Physical Activity Plans:

Type of Physical Activity					
Number of days/week					
Minutes per day					
Total minutes per week					

Referral to Health and Fitness Professional:

Name: _____ Phone: _____

Address: _____

Website: _____

For more information, visit www.myexerciseplan.com/assessment.

* **Physical Activity Guidelines & Recommendations**

150 minutes per week of moderate-intensity or 75 minutes of vigorous-intensity physical activity OR a combination of moderate- and vigorous-intensity. Plus muscle-strengthening activities that involve all major muscle groups done on two or more days per week.

** "Light" intensity – can talk or sing while exercising (i.e., walking slowly)

"Moderate" intensity – can talk but not sing while exercising (i.e., walking fast)

"Vigorous" intensity – can't talk or sing while exercising (i.e., jogging, running)

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Appendix K Physical Activity Clearance Form



Physical Activity Clearance Form

Clearance requested for: _____

Health care provider's name: _____

Please sign the statement that reflects your wishes:

1. ____ This patient may engage in an exercise program **only under clinical supervision.**
2. ____ This patient may engage in an exercise program **only under the supervision of a community-based health club professional.**
3. ____ This patient may engage in **independent (unrestricted)** moderate intensity exercise.

Restrictions: _____

Return form to: _____

Health care provider's signature: _____ Date: _____



Physical Activity Clearance Form

Clearance requested for: _____

Health care provider's name: _____

Please sign the statement that reflects your wishes:

1. ____ This patient may engage in an exercise program **only under clinical supervision.**
2. ____ This patient may engage in an exercise program **only under the supervision of a community-based health club professional.**
3. ____ This patient may engage in **independent (unrestricted)** moderate intensity exercise.

Restrictions: _____

Return form to: _____

Health care provider's signature: _____ Date: _____

Appendix L

Definitions and Acronyms

ACSM- American College of Sports Medicine

ADA- American Dietetic Association

AMA- American Medical Association

COE- Code of Ethics

DPG- Dietetic Practice Group

EIM- Exercise is Medicine

IDNT- *International Dietetics and Nutrition Terminology*

NCP- Nutrition Care Process

NCPM- Nutrition Care Process and Model

PAR-Q- Physical Activity Readiness Questionnaire

SCAN- Sports, Cardiovascular, and Wellness Nutrition

SDPF- Scope of Dietetics Practice Framework

SOP- Standards of Practice

SOPP- Standards of Professional Performance

WM- Weight Management

Baseline activity – refers to the light-intensity activities of daily life, such as standing, walking slowly, and lifting lightweight objects. People vary in how much baseline activity they do. People who do only baseline activity are considered to be inactive. They may do very short episodes of moderate- or vigorous-intensity activity, such as climbing a few flights of stairs, but these episodes aren't long enough to count toward meeting the Guidelines. The Guidelines don't comment on how variations in types and amounts of baseline physical activity might affect health, as this was not addressed by the Advisory Committee report.²

Health-enhancing physical activity – is activity that, when added to baseline activity, produces health benefits. In this document, the term "physical activity" generally refers to health-enhancing physical activity. Brisk walking, jumping rope, dancing, lifting weights, climbing on playground equipment at recess, and doing yoga are all examples of physical activity. Some people (such as postal carriers or carpenters on construction sites) may get enough physical activity on the job to meet the Guidelines.²

Physical activity – any body movement that works your muscles and uses more energy than you use when you're resting.

Physical activity guidance:

- Is a patient/client-centered process used by RDs and other health professionals to assist medically-cleared patients/clients with planning and executing ways to increase their physical activity level in accordance with current public health guidelines.
- Uses a patient's/client's current level of physical activity and readiness to change as the basis on which personalized physical activity goals and plans can be made.
- Requires the health professional to use cognitive and behavioral counseling skills to facilitate discussion with a patient/client in defining and attaining his/her physical activity goals.

Exercise is a form of physical activity that is planned, structured, repetitive, and performed with the goal of improving health or fitness. Although all exercise is physical activity, not all physical activity is exercise.”²

Exercise prescription is:

- A detailed exercise plan that is tailored to a person's current fitness and health goals.
- Based on the patients/clients current fitness level as assessed by objective fitness tests. These tests include, but are not limited to, cardiorespiratory fitness, musculoskeletal strength and endurance, flexibility, balance (for older adults), and body composition.
- Provided by certified fitness professional.

Qualified Health and Fitness Professionals: It is highly recommended that the RD refer patients only to fitness professionals who have been certified by an organization whose certification programs have been accredited through National Commission for Certifying Agencies (NCCA). For a list of organizations whose certification programs are accredited by the NCCA see [Appendix I](#). For the titles and descriptions of ACSM certification programs that are accredited by the NCCA see pp. 28-29.

Transtheoretical Model of Change (Stages of Change Model) in relation to physical activity.

Precontemplation - Patient/client is not active and not intending to change

Contemplation - Patient/client not active but is thinking about being more active.

Preparation - Patient/client doing some exercise but not at recommended level or intending to start exercising soon

Action - Patient/client exercising recommended amount for 1- 6 months

Maintenance - Patient/client exercising recommended amount for over 6 months

Appendix M 2008 Physical Activity Guidelines for Americans At-A-Glance: A Fact Sheet for Professionals

2008 Physical Activity Guidelines for Americans At-A-Glance: A Fact Sheet for Professionals

The Physical Activity Guidelines for Americans At-A-Glance: A Fact Sheet for Professionals is designed for busy professionals as a quick desk-side reference to the *2008 Physical Activity Guidelines for Americans* published by the U.S. Department of Health and Human Services.

These Guidelines are needed because of the importance of physical activity to the health of Americans, whose current inactivity puts them at unnecessary risk. The latest information shows that inactivity among American children, adolescents, and adults remains relatively high, and little progress has been made in increasing levels of physical activity among Americans.

Key Guidelines

Substantial health benefits are gained by doing physical activity according to the Guidelines presented below for different groups.

Children and Adolescents (aged 6–17)

- Children and adolescents should do 1 hour (60 minutes) or more of physical activity every day.
- Most of the 1 hour or more a day should be either moderate- or vigorous-intensity aerobic physical activity.
- As part of their daily physical activity, children and adolescents should do vigorous-intensity activity on at least 3 days per week. They also should do muscle-strengthening and bone-strengthening activity on at least 3 days per week.

Adults With Disabilities

Follow the adult guidelines. If this is not possible, these persons should be as physically active as their abilities allow. They should avoid inactivity.

Children and Adolescents With Disabilities

Work with the child's health care provider to identify the types and amounts of physical activity appropriate for them. When possible, these children should meet the guidelines for children and adolescents—or as much activity as their condition allows. Children and adolescents should avoid being inactive.

Pregnant and Postpartum Women

Healthy women who are not already doing vigorous-intensity physical activity should get at least 2 hours and 30 minutes (150 minutes) of moderate-intensity aerobic activity a week. Preferably, this activity should be spread throughout the week. Women who regularly engage in vigorous-intensity aerobic activity or high amounts of activity can continue their activity provided that their condition remains unchanged and they talk to their health care provider about their activity level throughout their pregnancy.



www.health.gov/paguidelines



2008 Physical Activity Guidelines for Americans At-A-Glance: A Fact Sheet for Professionals page 2

For all individuals, some activity is better than none.

Adults (aged 18–64)

- Adults should do 2 hours and 30 minutes a week of moderate-intensity, or 1 hour and 15 minutes (75 minutes) a week of vigorous-intensity aerobic physical activity, or an equivalent combination of moderate- and vigorous-intensity aerobic physical activity. Aerobic activity should be performed in episodes of at least 10 minutes, preferably spread throughout the week.
- Additional health benefits are provided by increasing to 5 hours (300 minutes) a week of moderate-intensity aerobic physical activity, or 2 hours and 30 minutes a week of vigorous-intensity physical activity, or an equivalent combination of both.
- Adults should also do muscle-strengthening activities that involve all major muscle groups performed on 2 or more days per week.

Older Adults (aged 65 and older)

- Older adults should follow the adult guidelines. If this is not possible due to limiting chronic conditions, older adults should be as physically active as their abilities allow. They should avoid inactivity. Older adults should do exercises that maintain or improve balance if they are at risk of falling.

For all individuals, some activity is better than none. Physical activity is safe for almost everyone, and the health benefits of physical activity far outweigh the risks. People without diagnosed chronic conditions (such as diabetes, heart disease, or osteoarthritis) and who do not have symptoms (e.g., chest pain or pressure, dizziness, or joint pain) do not need to consult with a health care provider about physical activity.



ODPHP Publication No. U0042

Health Benefits of Physical Activity—A Review of the Strength of the Scientific Evidence

Adults and Older Adults

Strong Evidence

- Lower risk of:
- Early death
 - Heart disease
 - Stroke
 - Type 2 diabetes
 - High blood pressure
 - Adverse blood lipid profile
 - Metabolic syndrome
 - Colon and breast cancers

Prevention of weight gain

Weight loss when combined with diet

Improved cardiorespiratory and muscular fitness

Prevention of falls

Reduced depression

Better cognitive function (older adults)

Moderate to Strong Evidence

Better functional health (older adults)

Reduced abdominal obesity

Moderate Evidence

Weight maintenance after weight loss

Lower risk of hip fracture

Increased bone density

Improved sleep quality

Lower risk of lung and endometrial cancers

Children and Adolescents

Strong Evidence

Improved cardiorespiratory endurance and muscular fitness

Favorable body composition

Improved bone health

Improved cardiovascular and metabolic health biomarkers

Moderate Evidence

Reduced symptoms of anxiety and depression

October 2008

Appendix N

Answers to Case Studies

The purpose of these case studies is to allow you to practice the application of the various elements of this toolkit to a client situation as realistically as possible. The cases are presented using a sample progress note that adheres to the steps of the Nutrition Care Process. There are 5 different cases:

- S.A. – Patient/client who is overweight, pages 89-91
- J.P. – Patient/client who has several CVD risk factors, pages 92-103
- K.T. – Patient/client who is interested in sports performance enhancement, pages 104-106
- M.S. – Patient/client who is obese, pages 107-109
- J.R. – Patient/client with type 2 diabetes 110-112

Case Set-up

This is your first visit with the patient/client. You have already spent about 30 minutes establishing rapport, taking a 24-hour recall and analyzing the recall data using an online dietary analysis system, and completing most of the Nutrition Assessment step.

Case Tasks

Use the progress note, your professional experience, what you have learned in this workshop, and your clinical judgment to complete the following tasks. *Although there will be additional diagnoses, interventions, and monitoring and evaluation related to nutrition in each case study, the focus of these case studies is the component of intervention related to physical activity guidance.*

Scope of Practice

RDs are ethically and legally responsible for practicing within their individual and legal, if applicable, scope of practice. The Academy encourages RDs to use the evaluation process provided by the Scope of Dietetics Practice Framework, including the Decision Analysis Tree and/or Decision Analysis Tool (<http://www.eatright.org/HealthProfessionals/content.aspx?id=6867>) to assess the degree to which they personally have the required knowledge, skills, and competence to provide physical activity guidance to patients/clients. If you are unfamiliar with the components, terminology and formatting of the Nutrition Care Process, or the Scope of Dietetics Practice Framework, take this opportunity to learn more about them.

Nutrition Diagnosis Step:

1. Identify which of the physical activity-related nutrition diagnosis labels apply to the patient/client. Pay close attention to the information provided in the Assessment section.
2. For each diagnosis label you select, write one or more nutrition diagnosis statements using the PES format (Problem, Etiology, Signs and Symptoms). That is, "*Diagnosis label (problem area) related to etiology (cause or contributing risk factor) as evidenced by signs and symptoms (defining characteristics)*". For example:

"Physical inactivity related to severe joint pain secondary to obesity as evidenced by patient/client reported use of motorized cart when shopping."

Nutrition Intervention Step:

1. You may identify more than one diagnosis. If so, prioritize your diagnoses based on the needs of the patient/client and the opportunity for physical activity guidance. Then select specific intervention strategies that are focused on the etiologies of the problems you identified earlier. The sample Progress Note shows the nutrition interventions (from the Academy's *International Dietetics and Nutrition Terminology (IDNT) Reference Manual, Third Edition*) that are most relevant to physical activity interventions.
2. Determine the goal and expected outcomes, amount of change (if applicable) and timeline for each intervention strategy you select. Consider biochemical, anthropometric, physical, and/or food and nutrition goals/outcomes or indicators that you would expect to occur before the next visit.
3. Remember, referral to a certified fitness professional is considered an intervention.

Nutrition Monitoring and Evaluation Step:

1. Identify how you are planning to follow-up with the patient.

Disclaimer: *The focus of these case studies is physical activity, therefore Diagnosis, Intervention, and Monitoring and Evaluation related to nutritional status are not included. However there would be at least one nutrition-related Diagnosis, Intervention, and Monitoring and Evaluation prioritized with the physical activity-related Diagnosis, Intervention, and Monitoring and Evaluation.*

Initial Progress Note

Name: S. A. **MR#** 8912 **Date:** 9/24/2011 **DOB:** 10/08/57 **Age:** 54
Referring physician: T. Smith

Nutrition Assessment

Meeting current Physical Activity Guidelines: Yes No

Sedentary time per day (e.g. sitting at the computer, desk, etc.): 7 hours

Physical Activity Clearance for independent exercise:

- Yes
- No
- Pending clearance from physician

Stage of Readiness to Change Physical Activity Level:

- Pre-contemplation (not thinking about being physically active)
- Contemplation (thinking about being active; not doing any physical activity)
- Preparation (intending to change soon or doing some physical activity)
- Action (meeting the Physical Activity Guidelines but for less than 6 months)
- Maintenance (meeting the Physical Activity Guidelines for more than 6 months)

Nutrition-focused Physical Findings

Client appears fit, somewhat somber expression, affect is diminished. Patient expresses that she is hungry constantly, but 'won't give in'. She has a somewhat desperate tone; confidence to maintain weight without 'drastic' measures is low.

Nutrition Diagnosis

The following are physical activity-related diagnoses. You are not limited to using these diagnoses. Prioritize your diagnoses.

- | | |
|---|---|
| <input type="checkbox"/> NB-1.1 Food- and nutrition-related knowledge deficit | <input type="checkbox"/> NB-2.3 Inability or lack of desire to manage self-care |
| <input type="checkbox"/> NB-1.3 Not ready for diet/lifestyle change | <input type="checkbox"/> NB-2.5 Poor nutrition quality of life (NQOL) |
| <input type="checkbox"/> NB-1.4 Self-monitoring deficit | <input type="checkbox"/> NC-3.1 Underweight |
| <input type="checkbox"/> NB-1.5 Disordered eating pattern | <input type="checkbox"/> NC-3.3 Overweight/obesity |
| <input type="checkbox"/> NB-2.1 Physical inactivity | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> NB-2.2 Excessive physical activity | |

Nutrition Diagnosis Statements:

Nutrition diagnosis (problem), related to etiology as evidenced by Signs/Symptoms:

Diagnosis _____ **Related To** _____ **As Evidence By** _____

Physical Inactivity related to medical recommendation to stop running and use an alternate method of physical activity as evidenced by reported lumbar vertebrae fracture followed by stabilization fusion L5/S1 and patient’s statement that she is following the MD’s advice.

Nutrition Intervention

Categories of Nutrition Interventions:

Food and/or Nutrient Delivery

(not applicable for physical activity-related interventions)

Nutrition Education

- Nutrition Education- Content (E-1.1-1.7)
- Nutrition Education- Application (E-2.1-2.3)

Nutrition Counseling

- Theoretical Basis/Approach (C-1.1-1.5)
- Strategies (C-2.1-2.11)

Coordination of Nutrition Care

- Coordination of Other Care During Nutrition Care (RC-1.1-1.4)
- Discharge and Transfer of Nutrition Care to a New Setting or Provider (RC-2.1-2.2)

Intervention #1: Nutrition Counseling Strategies:

Goals/Expected Outcome: Additional calories added to meet measured energy requirements and overcome food fears.

Intervention #2: Nutrition Education- Application

Goals/Expected Outcome: Patient’s/client’s scheduled physical activity is increased 30 minutes per week to meet the Guidelines and patient/client is utilizing a Step Counter to monitor increased base-line physical activity.

Intervention #3: Coordination of Nutrition Care

Goals/Expected Outcome: Refer to a certified fitness professional to provide alternative higher intensity activity to running.

Intervention #4: Coordination of Nutrition Care

Goals/Expected Outcome: With patient/client permission, coordinate with patient’s/client’s mental health professional to continue working to alleviate food fears.

Educational Materials:

- Moving More: What’s In It for Me?
- Decisional Balance worksheet
- ACSM Prescription for Health Flyer(s): _____
- Guide to Using Step Counters
- Starting an Exercise Program
- Other: _____

Monitoring and Evaluation

- Recommend f/u with RD in _____ 2 _____ week(s) month(s) PRN: _____
- Recommend f/u with a certified fitness professional
- Physical activity (FH-7.3.1-FH-7.3.11)
 - Consistency (FH-7.3.2)
 - Frequency (FH-7.3.3)
 - Duration (FH-7.3.4)
 - Intensity (FH-7.3.5)
 - Type of physical activity (FH-7.3.6)
 - Strength (FH-7.3.8)
 - TV/screen time (FH-7.3.8)
 - Other sedentary activity time (FH-7.3.9)
- Estimated energy needs (CS-1.1.1-CS-1.1.2)
- Ideal/reference body weight (IBW) (CS-5.1.1)
- Recommended body mass index (BMI) (CS-5.1.2)

Initial Progress Note

Name: J.P. (version 1) **MR#** 8915 **Date:** 9/24/2011 **DOB:** 02/25/1969 **Age:** 42
Referring physician: T. Smith

Note: There are two versions of the J.P. case study initial visit presented on the following pages to clearly show how use of the decision analysis tool would vary for the RD depending on whether she/he does or does not possess fitness certifications: Version # 1 demonstrates use of the Decision Analysis Tool for an RD withOUT a fitness certification and Version #2 demonstrates differences in this Decision Analysis Tool for an RD with fitness certification.

Note: This counseling session was conducted by and the subsequent progress note written by an RD, who after utilizing the decision analysis tool (see below) in the Scope of Dietetics Practice Framework, <http://www.eatright.org/HealthProfessionals/content.aspx?id=6867>, to assess his/her individual scope of practice knowledge and competencies, determined that **he/she does not possess** fitness or exercise certification and does not have the necessary knowledge and training to provide education beyond the 2008 PA Guidelines.

Decision Analysis Tool- JP Version 1

When to Use the Decision Analysis Tool: Use this tool to determine whether a specific requested service or act falls within your individualized scope of practice. This tool can be used in conjunction with the Decision Tree, or separate from it.

Instructions for Use: Complete each section, and then follow the instructions at the end of each section.

Part A: General Review	
1. Describe the activity or service to be performed:	Conduct physical fitness testing and subsequently discuss a formalized physical activity plan for a patient with elevated cholesterol, blood pressure, and obesity.
2. Review the practice expectations (job description, policies and procedures) and core competencies for your level (DTR, RD, or RD Specialty/Advanced Practice) to determine whether the service or act is permitted. <i>RD answer: Not explicitly permitted.</i>	
3. Review the Code of Ethics, Standards of Practice in Nutrition Care, and Standards of Professional Performance for your practice level to determine whether the service or act is permitted. <i>RD answer: Not explicitly permitted.</i>	
4. Review any licensure laws to determine whether the activity is allowed or not explicitly restricted. <i>RD answer: Not explicitly restricted.</i>	

➔ **Evaluation of Part A:** If the service or act is NOT explicitly permitted by 2 or 3 above, or explicitly restricted by above, go on to **Part B** and/or the Decision Tree. If it is explicitly permitted, go to **Part F**.

Part B: Education, Credentialing and Privileging	No	Yes	N/A
1. If the activity or service was not included in your basic DTR/RD education program, have you since completed a training program that demonstrates competence?	x		
2. If yes, has this training been documented?			
3. Is the activity or service becoming routine across the profession that it can reasonably and prudently be assumed within scope?	x		
4. Do the policies and procedures, your manual, or your credentialing and privileging for your employer permit the activity or service?	x		
5. Does performing the activity pass the “reasonable and prudent” test for dietetics practice?	x		
6. Is the activity reflective of the consumer’s desires and appropriately authorized?		x	
7. Is the activity authorized by federal statute, if applicable (e.g., Medicare Medical Nutrition Therapy)?			x

➔ **Evaluation of Part B:** If you answer “no” to any of the above questions, the activity may not be within your scope of practice. Go to **Part C** for further analysis. If you answer “yes” or “N/A” to all the questions, then proceed to **Part F** of this tool.

Part C: Existing Documentation	No	Yes	N/A
1. Does information about this activity exist in nationally developed guidelines and standards of practice; or from a local, community, or national perspective?		x	
2. Are there statements or opinions from professional groups or dietetics organizations on this activity?		x	
3. Does the activity meet the requirements of the Dietetics Practice Act for your state, if applicable?			x
4. Does carrying out the activity pass the “reasonable and prudent” test for dietetics practice?	x		

➔ **Evaluation of Part C:** If you answer “no” to any of the above questions, go to **Part D** to review Advisory Opinions. If you answer “yes” or “N/A” to all these questions, your institution may want to consider including the activity in its official policies and procedures, competency, credentialing, and privileging literature. You can proceed to **Part F**, if you answer “yes” or “N/A” to all the questions in this section.

Part D: Advisory Opinions	No	Yes	N/A
1. Is there an Advisory Opinion on this activity or service?		x	
2. Is the activity or service covered in the policy and procedure manual for your employer?	x		
3. Is the activity or service not explicitly restricted by the licensure laws for your state?	x		
4. Is your competence for performing this activity or service documented in your personnel file?	x		
5. Does carrying out the activity or service pass the “reasonable and prudent” test for dietetics practice?	x		
6. Is the activity or service reflective of the consumer’s desires and appropriately authorized?		x	

- ➔ **Evaluation of Part D:** If you answer “no” to any of the above questions, consider pursuing an Advisory Opinion through your organization or the Academy. To obtain an Advisory Opinion, go to **Part E**. If you answer “yes” to all of the above questions, go to **Part F**.
- ➔ **Part F** provided the opinion supports performance of the activity. If the Opinion does not support it, and you have answered “no” to any of the questions in **Parts A – D**, you are not authorized to perform the activity.

Part F: Performing the Service or Activity

Provided you have answered “yes” to all of the questions in any of the above sections and followed the instructions at the end of the section directing you to Part F, you may consider performing the act with valid orders when necessary and in accordance with organizational policies and procedures.

Decision Analysis Outcome

The outcome obtained through use of the Decision Analysis Tool indicates that this RD is not qualified to perform the specified activity because the RD does not possess the necessary education, training, and appropriate fitness certification to conduct physical fitness testing and discuss a formalized physical activity plan for a patient with elevated cholesterol, blood pressure, and obesity who has been released for independent physical activity. However, in accordance with the RD’s individual scope of practice, the RD can provide physical activity guidance according to the 2008 Physical Activity Guidelines.

Nutrition Assessment

Meeting current Physical Activity Guidelines: Yes No

Sedentary time per day (e.g. sitting at the computer, desk, etc.): 12 hours

Physical Activity Clearance for independent exercise:

- Yes
- No
- Pending clearance from physician

Stage of Readiness to Change Physical Activity Level:

- Precontemplation (not thinking about being physically active)
- Contemplation (thinking about being active; not doing any physical activity)
- Preparation (intending to change soon or doing some physical activity)
- Action (meeting the Physical Activity Guidelines but for less than 6 months)
- Maintenance (meeting the Physical Activity Guidelines for more than 6 months)

Nutrition-focused Physical Findings

(Physical appearance, muscle and fat wasting, swallow function, appetite and affect)

All WNL except for elevated body weight and acanthosis nigricans.

Nutrition Diagnosis

The following are food and physical activity-related diagnoses. You are not limited to using these diagnoses. Prioritize your diagnoses.

- NB-1.1 Food-and nutrition-related knowledge deficit
- NB-1.3 Not ready for diet/lifestyle change
- NB-1.4 Self-monitoring deficit
- NB-1.5 Disordered eating pattern
- NB-2.1 Physical inactivity
- NB-2.2 Excessive physical activity
- NB-2.3 Inability or lack of desire to manage self-care
- NB-2.5 Poor nutrition quality of life (NQOL)
- NC-3.1 Underweight
- NC-3.3 Overweight/obesity
- Other: _____

Nutrition Diagnosis Statements:

Nutrition diagnosis (problem), related to etiology as evidenced by Signs/Symptoms:

Diagnosis _____ **Related To** _____ **As Evidence By** _____

Physical inactivity related to sedentary job as evidenced by HDL of 27 mg/dL and patient/client statement of less than 150 minutes/week of physical activity.

Nutrition Intervention

Categories of Nutrition Interventions:

Food and/or Nutrient Delivery

(not applicable for physical activity-related interventions)

Nutrition Education

- Nutrition Education- Content (E-1.1-1.7)
- Nutrition Education- Application (E-2.1-2.3)

Nutrition Counseling

- Theoretical Basis/Approach (C-1.1-1.5)
- Strategies (C-2.1-2.11)

Coordination of Nutrition Care

- Coordination of Other Care During Nutrition Care (RC-1.1-1.4)
- Discharge and Transfer of Nutrition Care to a New Setting or Provider (RC-2.1-2.2)

Intervention #1: Nutrition Education- Content: Provide physical activity information per 2008 Physical Activity Guidelines.

Goals/Expected Outcome: Client will verbally express understanding of the Guidelines.

Intervention #2: Nutrition Counseling: Use tools of EIM to explore activities that client likes or would be willing to try.

Goals/Expected Outcome: Client will identify 1-3 physical activity strategies he is willing to try prior to next visit.

Intervention #3: Coordination of care: Refer client to a certified fitness professional from the RD’s list of health fitness professionals whose certifications are accredited by NCCA.

Goals/Expected Outcome: Client will meet with a qualified, certified fitness professional for tailored, specific exercise information.

Educational Materials:

- Moving More: What's In It for Me?
- Decisional Balance worksheet
- ACSM Prescription for Health Flyer(s): Exercising with Hyperlipidemia
- Guide to Using Step Counters
- Starting an Exercise Program
- Other _____

Monitoring and Evaluation

- Recommend f/u with RD in 2 week(s) month(s) PRN: _____
- Recommend f/u with a certified fitness professional
- Physical activity (FH-7.3.1-FH-7.3.11)
 - Consistency (FH-7.3.2)
 - Frequency (FH-7.3.3)
 - Duration (FH-7.3.4)
 - Intensity (FH-7.3.5)
 - Type of physical activity (FH-7.3.6)
 - Strength (FH-7.3.8)
 - TV/screen time (FH-7.3.8)
 - Other sedentary activity time (FH-7.3.9)
- Estimated energy needs (CS-1.1.1-CS-1.1.2)
- Ideal/reference body weight (IBW) (CS-5.1.1)
- Recommended body mass index (BMI) (CS-5.1.2)
- Recommend follow-up review of blood lipid profile in 3-6 months.

Initial Progress Note

Name: J.P. (version2) **MR#** 8915 **Date:** 9/24/2011 **DOB:** 02/25/1969 **Age:** 42
Referring physician: T. Smith

Note: *There are two versions of the J.P. case study initial visit presented on the following pages to clearly show how use of the decision analysis tool would vary for the RD depending on whether she/he does or does not possess fitness certifications: Version # 1 demonstrates use of the Decision Analysis Tool for an RD withOUT a fitness certification and Version #2 demonstrates differences in this Decision Analysis Tool for an RD with fitness certification.*

Note: *This counseling session was conducted by and the subsequent progress note written by an RD, who after utilizing the decision analysis tool (see below) in the Scope of Dietetics Practice Framework, <http://www.eatright.org/HealthProfessionals/content.aspx?id=6867>, to assess his/her individual scope of practice knowledge and competencies, determined that **he/she does possess** fitness or exercise certification and does have the necessary knowledge, skill and training to provide education beyond the 2008 PA Guidelines.*

Decision Analysis Tool- JP Version 2

When to Use the Decision Analysis Tool: Use this tool to determine whether a specific requested service or act falls within your individualized scope of practice. This tool can be used in conjunction with the Decision Tree, or separate from it.

Instructions for Use: Complete each section, and then follow the instructions at the end of each section.

Part A: General Review	
1. Describe the activity or service to be performed:	Conduct physical fitness testing and subsequently discuss a formalized physical activity plan for a patient with elevated cholesterol, blood pressure, and obesity.
2. Review the practice expectations (job description, policies and procedures) and core competencies for your level (DTR, RD, or RD Specialty/Advanced Practice) to determine whether the service or act is permitted. <i>RD answer:</i>	<i>Not explicitly permitted.</i>
3. Review the Code of Ethics, Standards of Practice in Nutrition Care, and Standards of Professional Performance for your practice level to determine whether the service or act is permitted. <i>RD answer:</i>	<i>Not explicitly permitted.</i>
4. Review any licensure laws to determine whether the activity is allowed or not explicitly restricted. <i>RD answer:</i>	<i>Not explicitly restricted.</i>

➔ **Evaluation of Part A:** If the service or act is NOT explicitly permitted by 2 or 3 above, or explicitly restricted by 4 above, go on to **Part B** and/or the Decision Tree. If it is explicitly permitted, go to **Part F**.

Part B: Education, Credentialing and Privileging	No	Yes	N/A
1. If the activity or service was not included in your basic DTR/RD education program, have you since completed a training program that demonstrates competence?		x	
2. If yes, has this training been documented?		x	
3. Is the activity or service becoming routine across the profession that it can reasonably and prudently be assumed within scope?	x		
4. Do the policies and procedures, your manual, or your credentialing and privileging for your employer permit the activity or service?		x	
5. Does performing the activity pass the “reasonable and prudent” test for dietetics practice?	x		
6. Is the activity reflective of the consumer’s desires and appropriately authorized?		x	
7. Is the activity authorized by federal statute, if applicable (e.g., Medicare Medical Nutrition Therapy)?			x

➔ **Evaluation of Part B:** If you answer “no” to any of the above questions, the activity may not be within your scope of practice. Go to **Part C** for further analysis. If you answer “yes” or “N/A” to all the questions, then proceed to **Part F** of this tool.

Part C: Existing Documentation	No	Yes	N/A
1. Does information about this activity exist in nationally developed guidelines and standards of practice; or from a local, community, or national perspective?		x	
2. Are there statements or opinions from professional groups or dietetics organizations on this activity?		x	
3. Does the activity meet the requirements of the Dietetics Practice Act for your state, if applicable?			x
4. Does carrying out the activity pass the “reasonable and prudent” test for dietetics practice?	x		

➔ **Evaluation of Part C:** If you answer “no” to any of the above questions, go to **Part D** to review Advisory Opinions. If you answer “yes” or “N/A” to all these questions, your institution may want to consider including the activity in its official policies and procedures, competency, credentialing, and privileging literature. You can proceed to **Part F**, if you answer “yes” or “N/A” to all the questions in this section.

Part D: Advisory Opinions	No	Yes	N/A
1. Is there an Advisory Opinion on this activity or service?		x	
2. Is the activity or service covered in the policy and procedure manual for your employer?		x	
3. Is the activity or service not explicitly restricted by the licensure laws for your state?		x	
4. Is your competence for performing this activity or service documented in your personnel file?		x	
5. Does carrying out the activity or service pass the “reasonable and prudent” test for dietetics practice?	x		
6. Is the activity or service reflective of the consumer’s desires and appropriately authorized?		x	

➔ **Evaluation of Part D:** If you answer “no” to any of the above questions, consider pursuing an Advisory Opinion through your organization or the Academy. To obtain an Advisory Opinion, go to **Part E**. If you answer “yes” to all of the above questions, go to **Part F**.

Part E: Obtaining an Advisory Opinion

1. Contact the Scope of Dietetics Practice Framework Sub-Committee of the Quality Management Committee at quality@eatright.org for further information.

➔ **Evaluation of Part E:** Once you have received the Advisory Opinion, proceed to **Part F** provided the opinion supports performance of the activity. If the Opinion does not support it, and you have answered “no” to any of the questions in **Parts A – D**, you are not authorized to perform the activity.

Part F: Performing the Service or Activity

Provided you have answered “yes” to all of the questions in any of the above sections and followed the instructions at the end of the section directing you to Part F, you may consider performing the act with valid orders when necessary and in accordance with organizational policies and procedures.

Decision Analysis Outcome

The outcome obtained through use of the Decision Analysis Tool indicates that this RD is qualified to perform the specified activity because the RD possesses the necessary education, training, and appropriate fitness certification to conduct physical fitness testing and discuss a formalized physical activity plan for a patient with a controlled condition (elevated cholesterol, blood pressure, and obesity) who has been released for independent physical activity.

Nutrition Assessment

Meeting current Physical Activity Guidelines: Yes No

Sedentary time per day (e.g. sitting at the computer, desk, etc.): 12 hours

Physical Activity Clearance for independent exercise:

- Yes
- No
- Pending clearance from physician

Stage of Readiness to Change Physical Activity Level:

- Precontemplation (not thinking about being physically active)
- Contemplation (thinking about being active; not doing any physical activity)
- Preparation (intending to change soon or doing some physical activity)
- Action (meeting the Physical Activity Guidelines but for less than 6 months)
- Maintenance (meeting the Physical Activity Guidelines for more than 6 months)

Nutrition-focused Physical Findings

(Physical appearance, muscle and fat wasting, swallow function, appetite and affect)

All WNL except for elevated body weight.

Nutrition Diagnosis

The following are food and physical activity-related diagnoses. You are not limited to using these diagnoses. Prioritize your diagnoses.

- NB-1.1 Food-and nutrition-related knowledge deficit
- NB-1.3 Not ready for diet/lifestyle change
- NB-1.4 Self-monitoring deficit
- NB-1.5 Disordered eating pattern
- NB-2.1 Physical inactivity
- NB-2.2 Excessive physical activity
- NB-2.3 Inability or lack of desire to manage self-care
- NB-2.5 Poor nutrition quality of life (NQOL)
- NC-3.1 Underweight
- NC-3.3 Overweight/obesity
- Other: _____

Nutrition Diagnosis Statements:

Nutrition diagnosis (problem), related to etiology as evidenced by Signs/Symptoms:

Diagnosis _____ **Related To** _____ **As Evidence By** _____

Physical inactivity related to sedentary job as evidenced by HDL of 27 mg/dL and patient/client statement of less than 150 minutes/week of physical activity.

Nutrition Intervention

Categories of Nutrition Interventions:

Food and/or Nutrient Delivery

(not applicable for physical activity-related interventions)

Nutrition Education

- Nutrition Education- Content (E-1.1-1.7)
- Nutrition Education- Application (E-2.1-2.3)

Nutrition Counseling

- Theoretical Basis/Approach (C-1.1-1.5)
- Strategies (C-2.1-2.11)

Coordination of Nutrition Care

- Coordination of Other Care During Nutrition Care (RC-1.1-1.4)
- Discharge and Transfer of Nutrition Care to a New Setting or Provider (RC-2.1-2.2)

Intervention #1: Nutrition Education-Application: Provide physical activity information per 2008 Physical Activity Guidelines.

Goals/Expected Outcome: Client will verbally express understanding of the Guidelines.

Intervention #2: Nutrition Counseling: Use tools of EIM to explore activities that client likes or would be willing to try.

Goals/Expected Outcome: Client will identify 1-3 physical activity strategies he is willing to try prior to next visit.

Intervention #3: The RD who is also ACSM–HFS will conduct Physical Fitness Testing

Goals/Expected Outcome: Identify client specific guidelines for heart rate monitoring, exercise intensity and specific exercise routine to meet the client’s goals.

Educational Materials:

- Moving More: What's In It for Me?
- Decisional Balance worksheet
- ACSM Prescription for Health Flyer(s): Exercising with Hyperlipidemia
- Guide to Using Step Counters
- Starting an Exercise Program
- Other _____

Monitoring and Evaluation

- Recommend f/u with RD in 2 week(s) month(s) PRN: _____
- Recommend f/u with a certified fitness professional
- Physical activity (FH-7.3.1-FH-7.3.11)
 - Consistency (FH-7.3.2)
 - Frequency (FH-7.3.3)
 - Duration (FH-7.3.4)
 - Intensity (FH-7.3.5)
 - Type of physical activity (FH-7.3.6)
 - Strength (FH-7.3.8)
 - TV/screen time (FH-7.3.8)
 - Other sedentary activity time (FH-7.3.9)
- Estimated energy needs (CS-1.1.1-CS-1.1.2)
- Ideal/reference body weight (IBW) (CS-5.1.1)
- Recommended body mass index (BMI) (CS-5.1.2)
- Recommend follow-up review of blood lipid profile in 3-6 months.

Initial Progress Note

Name: K.T. **MR#** 8914 **Date:** 9/24/2011 **DOB:** 05/11/1981 **Age:** 30
Referring physician: T. Smith

Nutrition Assessment

Meeting current Physical Activity Guidelines: Yes No

Sedentary time per day (e.g. sitting at the computer, desk, etc.): 8 hours

Physical Activity Clearance for independent exercise:

- Yes
- No
- Pending clearance from physician

Stage of Readiness to Change Physical Activity Level:

- Pre-contemplation (not thinking about being physically active)
- Contemplation (thinking about being active; not doing any physical activity)
- Preparation (intending to change soon or doing some physical activity)
- Action (meeting the Physical Activity Guidelines but for less than 6 months)
- Maintenance (meeting the Physical Activity Guidelines for more than 6 months)

Nutrition-focused Physical Findings

Low energy intake.

Nutrition Diagnosis

The following are food and physical activity-related diagnoses. You are not limited to using these diagnoses. Prioritize your diagnoses.

- | | |
|--|---|
| <input type="checkbox"/> NB-1.1 Food-and nutrition-related knowledge deficit | <input type="checkbox"/> NB-2.3 Inability or lack of desire to manage self-care |
| <input type="checkbox"/> NB-1.3 Not ready for diet/lifestyle change | <input type="checkbox"/> NB-2.5 Poor nutrition quality of life (NQOL) |
| <input type="checkbox"/> NB-1.4 Self-monitoring deficit | <input type="checkbox"/> NC-3.1 Underweight |
| <input type="checkbox"/> NB-1.5 Disordered eating pattern | <input type="checkbox"/> NC-3.3 Overweight/obesity |
| <input type="checkbox"/> NB-2.1 Physical inactivity | <input type="checkbox"/> Other: NI-1.4 Inadequate energy intake |
| <input type="checkbox"/> NB-2.2 Excessive physical activity | |

Nutrition Diagnosis Statements:

Nutrition diagnosis (problem), related to *etiology* as evidenced by *Signs/Symptoms*:

Diagnosis _____ **Related To** _____ **As Evidence By** _____

Inadequate energy intake (NI-1.4) related to harmful beliefs/attitudes about food, nutrition and nutrition-related information as evidence by low caloric intake (1,500 kcal/day) versus measured energy needs (2,325 kcal/day) and patient statement that “running is getting more difficult.”

Nutrition Intervention

Categories of Nutrition Interventions:

Food and/or Nutrient Delivery

(not applicable for physical activity-related interventions)

Nutrition Education

- Nutrition Education- Content (E-1.1-1.7)
- Nutrition Education- Application (E-2.1-2.3)

Nutrition Counseling

- Theoretical Basis/Approach (C-1.1-1.5)
- Strategies (C-2.1-2.11)

Coordination of Nutrition Care

- Coordination of Other Care During Nutrition Care (RC-1.1-1.4)
- Discharge and Transfer of Nutrition Care to a New Setting or Provider (RC-2.1-2.2)

Intervention #1: Nutrition Education

Goals/Expected Outcome: importance of adequate energy and carbohydrate intake for physical activity performance and recovery.

Intervention #2: Nutrition counseling strategies

Goals/Expected Outcome: self-monitoring of quality and quantity of dietary intake.

Intervention #3: Coordination of care

Goals/Expected Outcome: refer to community physical activity resources such as local running association.

Educational Materials:

- Moving More: What's In It for Me?
- Decisional Balance worksheet
- ACSM Prescription for Health Flyer(s): _____
- Guide to Using Step Counters
- Starting an Exercise Program
- Other: _____

Monitoring and Evaluation

- Recommend f/u with RD in 2 week(s) month(s) PRN: _____
- Recommend f/u with a certified fitness professional
- Physical activity (FH-7.3.1-FH-7.3.11)
 - Consistency (FH-7.3.2)
 - Frequency (FH-7.3.3)
 - Duration (FH-7.3.4)
 - Intensity (FH-7.3.5)
 - Type of physical activity (FH-7.3.6)
 - Strength (FH-7.3.8)
 - TV/screen time (FH-7.3.8)
 - Other sedentary activity time (FH-7.3.9)
- Estimated energy needs (CS-1.1.1-CS-1.1.2)
- Ideal/reference body weight (IBW) (CS-5.1.1)
- Recommended body mass index (BMI) (CS-5.1.2)

Initial Progress Note

Name: M.S. **MR#** 8911 **Date:** 9/24/2011 **DOB:** 08.24.66 **Age:** 43
Referring Physician: T. Smith

Nutrition Assessment

Meeting current Physical Activity Guidelines: Yes No

Sedentary time per day (e.g. sitting at the computer, desk, etc.): 10 hours

Physical Activity Clearance for independent exercise:

- Yes
- No
- Pending clearance from physician

Stage of Readiness to Change Physical Activity Level:

- Pre-contemplation (not thinking about being physically active)
- Contemplation (thinking about being active; not doing any physical activity)
- Preparation (intending to change soon or doing some physical activity)
- Action (meeting the Physical Activity Guidelines but for less than 6 months)
- Maintenance (meeting the Physical Activity Guidelines for more than 6 months)

Nutrition-focused Physical Findings

Patient expresses positive feeling of appropriate lap band adjustment, and medical record indicates appropriate restriction from fluoroscopy. Patient appears healthy, yet overweight. Patient walking with limp. He maintains good eye contact and is open and candid. Patient affect normal, expressing high motivation and plan to reinstate previous/post- surgery lifestyle to return to lower weight. He expressed hope that the change in medication (not sure of name and not in medical record) will help him lose weight gained after beginning previous Topamax and Depakote. Patient is animated and engaged.

Nutrition Diagnosis

The following are food and physical activity-related diagnoses. You are not limited to using these diagnoses. Prioritize your diagnoses.

- NB-1.1 Food-and nutrition-related knowledge deficit
- NB-1.3 Not ready for diet/lifestyle change
- NB-1.4 Self-monitoring deficit
- NB-1.5 Disordered eating pattern
- NB-2.1 Physical inactivity
- NB-2.2 Excessive physical activity
- NB-2.3 Inability or lack of desire to manage self-care
- NB-2.5 Poor nutrition quality of life (NQOL)
- NC-3.1 Underweight
- NC-3.3 Overweight/obesity
- Other: _____

Nutrition Diagnosis Statements:

Nutrition diagnosis (problem), related to etiology as evidenced by Signs/Symptoms:

Diagnosis _____ **Related To** _____ **As Evidence By** _____

Obesity related to insufficient physical activity as evidenced by BMI 32 and weight gain of 63 lbs. in the last year.

Physical inactivity related to lumbar/cervical pain as evidenced by medical history of lumbar DJD and cervical spondylosis

Nutrition Intervention

Categories of Nutrition Interventions:

Food and/or Nutrient Delivery

(not applicable for physical activity-related interventions)

Nutrition Education

- Nutrition Education- Content (E-1.1-1.7)
- Nutrition Education- Application (E-2.1-2.3)

Nutrition Counseling

- Theoretical Basis/Approach (C-1.1-1.5)
- Strategies (C-2.1-2.11)

Coordination of Nutrition Care

- Coordination of Other Care During Nutrition Care (RC-1.1-1.4)
- Discharge and Transfer of Nutrition Care to a New Setting or Provider (RC-2.1-2.2)

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Intervention #1: Nutrition counseling strategies

Goals/Expected Outcome: Achieve desired level of energy intake; specific dietary increases in fiber, fruits/vegetables, healthy fats; micronutrient intake monitored.

Intervention #2: Coordination of Care:

Goals/Expected Outcome: Appointment with clinical fitness professional, e.g., ACSM-Certified Clinical Exercise Specialist® (CES), development of physical activity plan; initiate exercise program per advice; coordinate meal planning with exercise program developed by the ACSM-CES.

Intervention #3: Coordination of Care: community physical activity resources

Goals/Expected Outcome: identify one daily activity using community resources that are not currently being utilized.

Educational Materials:

- Moving More: What’s In It for Me?
- Decisional Balance worksheet
- ACSM Prescription for Health Flyer(s): _____
- Guide to Using Step Counters
- Starting an Exercise Program
- Other: _____

Monitoring and Evaluation

- Recommend f/u with RD in 2 week(s) with coordination with an ACSM-Certified Clinical Exercise Specialist® (CES) month(s) PRN: _____
- Recommend f/u with a certified fitness professional
- Physical activity (FH-7.3.1-FH-7.3.11)
 - Consistency (FH-7.3.2)
 - Frequency (FH-7.3.3)
 - Duration (FH-7.3.4)
 - Intensity (FH-7.3.5)
 - Type of physical activity (FH-7.3.6)
 - Strength (FH-7.3.8)
 - TV/screen time (FH-7.3.8)
 - Other sedentary activity time (FH-7.3.9)
- Estimated energy needs (CS-1.1.1-CS-1.1.2)
- Ideal/reference body weight (IBW) (CS-5.1.1)
- Recommended body mass index (BMI) (CS-5.1.2)

Initial Progress Note

Name: J.R. **MR#** 8913 **Date:** 9/24/2011 **DOB:** 1/23/1961 **Age:** 48
Referring physician: T. Smith

Nutrition Assessment

Meeting current Physical Activity Guidelines: Yes No

Sedentary time per day (e.g. sitting at the computer, desk, etc.): 7.5 hours

Physical Activity Clearance for independent exercise:

- Yes
- No
- Pending clearance from physician

Stage of Readiness to Change Physical Activity Level:

- Precontemplation (not thinking about being physically active)
- Contemplation (thinking about being active; not doing any physical activity)
- Preparation (intending to change soon or doing some physical activity)
- Action (meeting the Physical Activity Guidelines but for less than 6 months)
- Maintenance (meeting the Physical Activity Guidelines for more than 6 months)

Nutrition-focused Physical Findings

WNL, obese, acanthosis nigricans

Nutrition Diagnosis

The following are physical activity-related diagnoses. You are not limited to using these diagnoses.

Prioritize your diagnoses.

- NB-1.1 Food- and nutrition-related knowledge deficit
- NB-1.3 Not ready for diet/lifestyle change
- NB-1.4 Self-monitoring deficit
- NB-1.5 Disordered eating pattern
- NB-2.1 Physical inactivity
- NB-2.2 Excessive physical activity
- NB-2.3 Inability or lack of desire to manage self-care
- NB-2.5 Poor nutrition quality of life (NQOL)
- NC-3.1 Underweight
- NC-3.3 Overweight/obesity
- Other: There are other nutrition diagnosis to consider here

Nutrition Diagnosis Statements:

Nutrition diagnosis (problem), related to etiology as evidenced by Signs/Symptoms:

Diagnosis _____ **Related To** _____ **As Evidence By** _____

Obesity related to excess energy intake and physical inactivity as evidenced by 24 hour recall indicating an energy intake of 2800 kcal/24 hr vs. estimated energy needs of 2698 kcal/24 hr.

Physical Inactivity related sedentary lifestyle as evidenced by patient report of 60 minutes of moderate intensity activity per week.

Nutrition Intervention

Categories of Nutrition Interventions:

Food and/or Nutrient Delivery

(not applicable for physical activity-related interventions)

Nutrition Education

- Nutrition Education- Content (E-1.1-1.7)
- Nutrition Education- Application (E-2.1-2.3)

Nutrition Counseling

- Theoretical Basis/Approach (C-1.1-1.5)
- Strategies (C-2.1-2.11)

Coordination of Nutrition Care

- Coordination of Other Care During Nutrition Care (RC-1.1-1.4)
- Discharge and Transfer of Nutrition Care to a New Setting or Provider (RC-2.1-2.2)

Intervention #1: Nutrition Counseling Strategies

Goals/Expected Outcome: Weight loss, decreased waist circumference, reduced HgA1C, decreased triglycerides, increased HDL, hydration monitoring secondary to increased blood glucose.

Intervention #2: Coordination of care: Refer to a certified fitness professional for fitness testing or a certified clinical fitness professional for an exercise stress test.

Intervention #3: Nutrition Education-Application.

Goals/Expected Outcome: Use of step counter to slowly increase daily activity.

Educational Materials:

- Moving More: What's In It for Me?
- Decisional Balance worksheet
- ACSM Prescription for Health Flyer(s): Exercising with Type II Diabetes
- Guide to Using Step Counters
- Starting an Exercise Program
- Other: _____

Monitoring and Evaluation

- Recommend f/u with RD in 2 week(s) month(s) PRN: _____
- Recommend f/u with a certified fitness professional
- Physical activity (FH-7.3.1-FH-7.3.11)
 - Consistency (FH-7.3.2)
 - Frequency (FH-7.3.3)
 - Duration (FH-7.3.4)
 - Intensity (FH-7.3.5)
 - Type of physical activity (FH-7.3.6)
 - Strength (FH-7.3.8)
 - TV/screen time (FH-7.3.8)
 - Other sedentary activity time (FH-7.3.9)
- Estimated energy needs (CS-1.1.1-CS-1.1.2)
- Ideal/reference body weight (IBW) (CS-5.1.1)
- Recommended body mass index (BMI) (CS-5.1.2)

Appendix O ADA SDPF Decision Analysis Tool

Decision Analysis Tool

When to Use the Decision Analysis Tool: Use this tool to determine whether a specific requested service or act falls within your individualized scope of practice. This tool can be used in conjunction with the Decision Tree, or separate from it.

Instructions for Use: Complete each section, and then follow the instructions at the end of each section.

Part A: General Review	
1. Describe the activity or service to be performed:	
2. Review the practice expectations (job description, policies and procedures) and core competencies for your level (DTR, RD, or RD Specialty/Advanced Practice) to determine whether the service or act is permitted.	
3. Review the Code of Ethics, Standards of Practice in Nutrition Care, and Standards of Professional Performance for your practice level to determine whether the service or act is permitted.	
4. Review any licensure laws to determine whether the activity is allowed or not explicitly restricted.	

➡ **Evaluation of Part A:** If the service or act is NOT explicitly permitted by 2 or 3 above, or explicitly restricted by 4 above, go on to [Part B](#) and/or the Decision Tree. If it is explicitly permitted, go to [Part E](#).

Part B: Education, Credentialing and Privileging	No	Yes	N/A [†]
1. If the activity or service was not included in your basic DTR/RD education program, have you since completed a training program that demonstrates competence?	<input type="checkbox"/>	<input type="checkbox"/>	
2. If yes, has this training been documented?	<input type="checkbox"/>	<input type="checkbox"/>	
3. Is the activity or service becoming routine across the profession that it can reasonably and prudently be assumed within scope?	<input type="checkbox"/>	<input type="checkbox"/>	
4. Do the policies and procedures, your manual, or your credentialing and privileging for your employer permit the activity or service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Does performing the activity pass the “reasonable and prudent” test for dietetics practice?	<input type="checkbox"/>	<input type="checkbox"/>	
6. Is the activity reflective of the consumer’s desires and appropriately authorized?	<input type="checkbox"/>	<input type="checkbox"/>	
7. Is the activity authorized by federal statute, if applicable (e.g., Medicare Medical Nutrition Therapy)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

➡ **Evaluation of Part B:** If you answer “no” to any of the above questions, the activity may not be within your scope of practice. Go to [Part C](#) for further analysis. If you answer “yes” or “N/A” to all the questions, then proceed to [Part F](#) of this tool.

[†] N/A – Not applicable.



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Part C: Existing Documentation	No	Yes	N/A
1. Does information about this activity exist in nationally developed guidelines and standards of practice; or from a local, community, or national perspective?	<input type="checkbox"/>	<input type="checkbox"/>	
2. Are there statements or opinions from professional groups or dietetics organizations on this activity?	<input type="checkbox"/>	<input type="checkbox"/>	
3. Does the activity meet the requirements of the Dietetics Practice Act for your state, if applicable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Does carrying out the activity pass the “reasonable and prudent” test for dietetics practice?	<input type="checkbox"/>	<input type="checkbox"/>	

➤ **Evaluation of Part C:** If you answer “no” to any of the above questions, go to [Part D](#) to review Advisory Opinions. If you answer “yes” or “N/A” to all these questions, your institution may want to consider including the activity in its official policies and procedures, competency, credentialing, and privileging literature. You can proceed to [Part F](#), if you answer “yes” or “N/A” to all the questions in this section.

Part D: Advisory Opinions	No	Yes
1. Is there an Advisory Opinion on this activity or service?	<input type="checkbox"/>	<input type="checkbox"/>
2. Is the activity or service covered in the policy and procedure manual for your employer?	<input type="checkbox"/>	<input type="checkbox"/>
3. Is the activity or service not explicitly restricted by the licensure laws for your state?	<input type="checkbox"/>	<input type="checkbox"/>
4. Is your competence for performing this activity or service documented in your personnel file?	<input type="checkbox"/>	<input type="checkbox"/>
5. Does carrying out the activity or service pass the “reasonable and prudent” test for dietetics practice?	<input type="checkbox"/>	<input type="checkbox"/>
6. Is the activity or service reflective of the consumer’s desires and appropriately authorized?	<input type="checkbox"/>	<input type="checkbox"/>

➤ **Evaluation of Part D:** If you answer “no” to any of the above questions, consider pursuing an Advisory Opinion through your organization or the Academy. To obtain an Advisory Opinion, go to [Part E](#). If you answer “yes” to all of the above questions, go to [Part F](#).

Part E: Obtaining an Advisory Opinion
1. Contact the Scope of Dietetics Practice Framework Sub-Committee of the Quality Management Committee at quality@eatright.org for further information.

➤ **Evaluation of Part E:** Once you have received the Advisory Opinion, proceed to [Part F](#) provided the opinion supports performance of the activity. If the Opinion does not support it, and you have answered “no” to any of the questions in [Parts A – D](#), you are not authorized to perform the activity.

Part F: Performing the Service or Activity
Provided you have answered “yes” to all of the questions in any of the above sections and followed the instructions at the end of the section directing you to Part F, you may consider performing the act with valid orders when necessary and in accordance with organizational policies and procedures.

Appendix P

Academy SDPF Decision Analysis Tree

