

Welcome to the Fitness Assessments presentation. The purpose of this presentation is to provide the health and fitness professional with a brief overview on key fitness assessments that should be performed with the client who has body composition alteration goals.

After completing this section, the health and fitness professional will be able to implement key subjective and objective assessments and utilize these findings to develop an individualized exercise program for the goals of weight loss.

Assessments are useful for gaining insight into one's past and present medical and physical history. Assessments should include a thorough medical history, current physical activity and dietary habits, physiological assessments, and even general likes and dislikes about exercises. This combination of information will help the health and fitness professional determine the initial needs and goals of an individual, if a physician's clearance is necessary, and if other professionals are needed to care for the client.

While gathering personal information on a client, be careful to never diagnose, prescribe treatment for medical issues, or act outside of your scope of practice. It is also important to note that all information gathered should be treated as confidential information and cannot be shared with another health and fitness professional without permission from the client.

There are two types of assessments-- subjective and objective assessments. Subjective assessments are designed to provide general information about a client including contact information, goals, emergency contact information, and they may also alert the health and fitness professional to any condition that may be contraindicated to exercise. Objective assessments are quantitative measures that provide unbiased information about the physical aspects of a client. We'll first start with subjective assessments.

One of the most common subjective assessments is the use of a physical activity readiness questionnaire, or PAR-Q. It is a widely used document that asks a series of questions designed to identify potential problems with a person's cardiorespiratory system. If a person answers yes to any of the questions, additional questions should be asked, and a physician should be consulted before a program begins. This leads us to the health history questionnaire.

A more detailed account of a person's current and past health status can be determined from a health history questionnaire. The health history questionnaire allows the health and fitness

professional to identify more specific medical contraindications to exercise, risk factors, and lifestyle behaviors that may affect an individual's ability to exercise safely. The sections of a health history questionnaire can vary in different settings, but some general topics to consider are personal and emergency contact information, general medical history, risk factor assessment, medications, physical activity patterns and goals.

Determining past and current eating habits will provide the health and fitness professional with an insight to a client's current habits and food preferences. The health and fitness professional should also understand the client's past attempts at dieting. Having a client recall food intake is a common technique for assessing dietary intake. A 24 hour or longer recall or a food frequency questionnaire are two easily administered assessments.

Currently, there is no gold standard for measuring physical activity in the population, and health and fitness professionals continually face the challenge of assessing daily physical activity. A physical activity diary is one commonly used direct method, but self-reports are very subjective. With this technique, clients record all of their activity for a specified number of days, typically a week. That information can be used to assess time spent in moderate or vigorous activities. And calories expended for physical activity can be calculated.

As mentioned earlier, objective assessments are quantitative measures that provide unbiased information about the physical aspects of a client. Some common objective assessments include scale weight, resting heart rate, blood pressure, body composition, cardiorespiratory fitness, and movement assessments. We'll briefly review each starting with scale weight.

It is important to obtain an accurate measure of body weight and not rely on the client's self-report. When working with weight loss clients, assessing total pounds lost does not differentiate between fat mass and fat free-mass. By regularly determining changes in tissue mass, program adjustments regarding food intake and exercise can be made accordingly. This can be determined by using body composition assessments mentioned later in the presentation.

A measure of resting heart rate, if done properly, can itself be an indicator of baseline fitness. More practically, it can be used to estimate a training heart rate for the new client. One method in determining resting heart rate is through the palpitation of the radial or carotid artery. The radial artery is located on the same side of the wrist as the thumb, and the carotid artery is located on the side of the neck near the midline of the jaw. Excessive pressure on the carotid artery may cause a decrease in heart rate and blood pressure, resulting in dizziness or fainting. Therefore, the radial

artery is the preferred location for measuring heart rate.

As mentioned earlier in the course, blood pressure is the amount of pressure on the arteries during the cardiac cycle. It can be quite variable, but normal resting values are considered 120 millimeters of mercury for the systolic pressure, and 80 millimeters of mercury for the diastolic pressure. Only a trained technician should take blood pressure, and if the reading remains high after three measures, a physician's clearance should be obtained before a program begins.

Since reduction of body fat percentage is the goal for the weight loss client, the health and fitness professional should have an understanding of the different methods available and should take time to practice and master these techniques. By accurately assessing body composition, not only can fat mass be assessed, but gains in lean body mass as well. Some common body composition assessments include body mass index, skin fold calipers, bioelectrical impedance, hip to waist ratios, and girth measurements. Refer to your course manual for rationale and proper execution of each of these assessments.

The goal of a cardiorespiratory assessment is to elicit a measurable physiological response to some level of stress to the cardiorespiratory system. It will also help to determine which heart rate training zone would be most appropriate for an individual to start in when beginning a cardiorespiratory exercise. For overweight and inactive individuals, the Rockport one mile fitness walking test gives a good estimate of cardiorespiratory fitness. Refer to your course manual for proper execution of this assessment.

Movement assessments, such as the overhead squat and single-leg squat assessments, will help the health and fitness professional determine basic structural and functional abnormalities in the client. Using five specific check points to determine movement compensations, movement assessments can be done quickly and accurately. These five check points are the feet, knees, lumbo-pelvic-hip complex, shoulders, and head. These assessments are designed to identify muscle imbalances that could put a client at risk for injury as an exercise program begins. They are also used to help health and fitness professionals develop corrective stretching and strengthening programs to improve movement impairments.

For example, when performing the overhead squat assessment, you may notice your client's knees move inward. This may indicate they need to work on stretching their adductor complex, due to over activity and tightness of these muscles, and strengthening the gluteus maximus and medius, due to their under activity and weakness. Refer to your course manual for proper execution of the

movement assessments and corrective strategies to improve one's quality of movement.

In summary, the assessment process is a critical part of program design. Not only does it physically describe the client on paper, but also provides important information about a client's health, exercise history, and goals. Objective measures also show whether a client is progressing or at a plateau. One of the greatest tools available to the health and fitness professional is the assessment process. Performing reassessments is also important when updating a client's program.