

OVERWEIGHT/ OBESITY

Weight that is 20% above desirable carries an increased risk to health (10); however, the patterns of fat distribution also effect risk. Central or android obesity (upper body) carries a higher risk for diabetes and coronary heart disease than lower body obesity. The enzyme lipoprotein lipase, which regulates the storage of fats as triglyceride, is more active in abdominal obesity and therefore increases fat storage. Upper body obesity is measured by the waist-to-hip ratio, and there is an increased health risk in women when the waist-to-hip ratio exceeds 0.8 and in men when this ratio exceeds 0.9 (13). Obesity often begins in childhood and early adolescence; however, 70% of all obesity begins in adulthood. Approximately 20% to 25% of children are obese, and many of them will carry their obesity into adulthood. The risks of childhood obesity persisting into adult obesity depend on the severity of obesity, age of onset, and parental obesity (15). After age 25, it is estimated that the average person gains 1.5lb of fat each year. This weight gain is attributed to a decrease in physical activity and increase in food intake, including large portion sizes and high fat content.

Most obesity experts feel that obesity is due to both genetic predisposition and environmental circumstances (11). In other words, a certain genetic makeup can give an individual a predisposition to obesity, and the appropriate environment can cause the expression of it. For example, the Pima Indians in Arizona were once of normal weight, living as farmers near the Gila River (11). Their lifestyles favored physical activity and a diet high in complex carbohydrates and low in fat. Today, the Pima Indians have high prevalence rates for obesity and diabetes mellitus, live a sedentary existence, and consume a high- fat and high- alcohol diet. Although modern Pima Indians have the same genetic makeup of their predecessors, their environment has been greatly altered, and their biological disposition to obesity is now well expressed.

People who are more prone to obesity than others because of genetic factors, have to be unusually careful with their dietary and exercise habits to counteract these inherited tendencies.

LIFESTYLE MODIFICATION

An obesity history can help the clinician determine compliance to various modes of intervention and may help the patient understand the disease. The purpose of obesity history is to access the social, psychological, and developmental aspects of the patient's obesity.

Family history supplies background information regarding the heritability of obesity and the family environment. In general, if both parents are obese, there is an 80% chance that the child will be obese. If neither parent is obese, there is only a 10% chance that the child will be obese, and if one parent is obese, there is a 50% chance the child will be obese.

The exercise history is used to assess the exercise characteristics of the patient and the present level of physical activity. The exercise history helps the clinician understand the patient and his or her experience with physical activity. Types of activities may include competitive sports, recreational activities, gardening, occupational, or specific activities. This helps the patient to realize that all forms of activity contribute to weight loss. Time of day is important in planning a program and recognizes that adherence is improved when the time to exercise is compatible with the patient's lifestyle. Planned activities are those that are scheduled into the day as specific time to exercise. Incidental activities occur within the day that add exercise to the

person's lifestyle; they include taking the stairs, park and walk, and increasing activities into daily routines.

Behaviour therapy should be used in conjunction with dietary and exercise interventions. The goal is to make patients aware of their eating and exercise habits and to restructure their environment to minimize eating cues and maximize activity cues. Behavioural strategies include teaching a variety of techniques to help the patient make positive changes. These include self monitoring, stimulus control, contingency management, problem solving, cognitive restructuring, stress management, and social support.

Self-monitoring requires the patient to observe and document his or her weight, dietary behaviours, and exercise patterns. The act of observation and writing down the behaviours is a constant reminder of eating and activity patterns. Periodic assessment of the records sensitizes the patient to inappropriate behaviours and highlights positive changes in lifestyle. Self-monitoring is the mainstay of behaviour modification and the most helpful technique for behaviour change.

Cognitive restructuring is used to identify and modify negative thoughts and attitudes related to diet and exercise. The purpose is to alter feelings, beliefs, and perceptions related to weight loss.

Stress management is a technique which recognizes that many people eat in response to stress. Techniques to manage stress include imagery, relaxation, and coping skills, and they can often diffuse situations that lead to overeating or to a sedentary lifestyle. Stress management can be used when eating and exercise lifestyles change as a result of over-commitment, poor planning, or time management problems.

Problem-solving techniques help the patient identify specific problems associated with eating or activity and design strategies to promote healthier alternatives. The patient learns to identify problems, choose a solution from several alternatives, and evaluate the outcome. For instance, a patient may identify the movie theatre as a high-risk situation because of its association with snack foods. An alternative may be to eat before going to the movies or plan to chew sugarless gum. An outcome evaluation would reflect the behaviour chosen by the patient.

Social support from friends, coworkers, spouses, and family is essential for weight loss. Patients should learn when and how to use support persons and understand the potential of missing opportunities for support. Refusing to go with friends to a restaurant that may be high risk for you is inappropriate; however, asking for support in choosing a low-calorie meal is suitable.

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