

Wellness & Biometric Screening

Employers have incorporated biometric health screening into wellness programs with increasing frequency over the past several years to help promote a healthier and more productive workforce. Most screening programs include measurement of vital signs, blood testing, body mass index (BMI), and a screening questionnaire. These basic parameters aid in identifying potential risks, provide information for the employee, and help guide their physician to focus on certain areas or the need for a more detailed evaluation. Screenings target health risks such as obesity, smoking, predisposition to heart disease, or diabetes.

The Center for Disease Control and Prevention defines biometric screening as “the measurement of physical characteristics such as height, weight, body mass index, blood pressure, blood cholesterol, blood glucose, and aerobic fitness tests that can be taken at the work site and used as part of a workplace health assessment to benchmark and evaluate changes in employee health status over time.” It should be noted, the screenings are used as a means of information and education, not as a diagnostic evaluation or substitution for an annual physical by their physician. Identification of risk factors raise employee awareness of health matters, aid in the reduction of health related costs, and encourage the overall health and productivity of the workforce.

When establishing a program, it is important to take into account the workforce population, including demographic factors, age distribution, location, and prevalence of specific health concerns. A good screening program should do several things: establish certain health goals to work toward; identify people with health risks; include a method of evaluation; address specific health parameters to be tested; and identify resources for education, follow-up, and referral. Biometric screening of an individual generally takes about 15-20 minutes to complete, and includes testing height, weight, BMI, blood pressure, blood glucose, cholesterol (or lipid panel), body composition or fat assessment, and a screening questionnaire. BMI is calculated using height and weight, which provides information about a person’s body fat or weight composition. Although there is some discussion about the distinction between overweight and obesity, there are generally accepted BMI ranges. The National Institutes of Health suggests the following ranges; <18.5 as underweight, 18.5-24.9 as normal or acceptable, 25.0-29.9 as overweight, and > 30 as obese.

Glucose, cholesterol, and blood pressure are other measurements employees have checked, which provide risk assessment for diseases of the heart and vascular system. The American Diabetes Association (ADA) suggests a target level for fasting glucose to be between 70-130 mg/dl. Hemoglobin A1c (HgA1C), also referred to as glycosylated hemoglobin, is a more specific test for glucose, which reflects the average glucose level over a 2-3 month time period. Screening for elevated cholesterol and blood pressure helps determine risks for heart disease. The American Heart Association (AHA) recommends a total cholesterol level at or below 180 mg/dl and optimal blood pressure near 120/80.

Total cholesterol can be calculated by adding HDL (“good”) +LDL (“bad”) + 20% triglycerides. Higher HDL levels are associated with not smoking, maintaining an ideal body weight, eating a healthy diet, and regular exercise. Lower levels of LDL and triglycerides are correlated with low fat diet (especially low saturated and trans fats), and a decreased incidence of heart disease, hardening of the arteries (arteriosclerosis), and stroke. Similar to low cholesterol levels, blood pressure in the optimal range has also been associated with a lower risk of health problems. The systolic blood pressure, or top number, is the pressure generated when the heart is contracting (i.e. beating) and the diastolic pressure, or bottom number, is when the heart is at rest (i.e. between beats). The AHA considers a normal blood pressure less than or equal to 120, and less than or equal to 80; with upper limits of pre-hypertension at <140 or <90 mmHg. High blood pressure (i.e. hypertension) is when the systolic pressure is above 140 or the diastolic pressure above 90.

A single elevated or abnormal value during a biometric health screening should raise awareness and be used as an incentive to seek medical advice. The screening is not a means to diagnose or a substitute for seeing your regular physician, but rather a starting point to become better educated and encourage discussion about diet, exercise, stress, and sleep habits with your physician. A successful biometric screening program is largely due to commitment from both the employer and employee. Although biometric screening programs vary, the ultimate screening goals are to raise awareness and promote an overall healthier workforce as part of a more comprehensive health program.