FITNESSGRAM®
The Cooper Institute®

Healthy Fitness Zone® Standards Overview

FITNESSGRAM is unique, and widely accepted, because the fitness assessments are evaluated using criterion-referenced standards. An advantage of criterion-referenced standards, over percentile norms, is they are based on levels of fitness for good health. The amount of fitness needed for good health differs between boys and girls and it also varies across age. The FITNESSGRAM Healthy Fitness Zone (HFZ) standards have been developed to take this into account.

Nationally recognized experts on the FITNESSGRAM **Scientific Advisory Board** (see www.fitnessgram.net for a list of members) evaluate research, assess best practices and adjust the HFZ standards, calculations, and protocols to match the best science available. With more than 30 years of experience, this renowned board is dedicated to ensuring that **FITNESSGRAM remains the best tool** for using fitness assessments, reporting, data analysis, and communication to support fitness education.

The FITNESSGRAM program classifies fitness levels using discrete zones to allow for more personalized feedback. The two primary zones are the **Healthy Fitness Zone** and the **Needs Improvement (NI) Zone;** however, for aerobic capacity and body composition two distinct NI zones are used to make further distinctions in fitness. The use of three zones makes it possible to provide more effective prescriptive messages to youth since the zones are based on clear differences in potential health risks. Descriptions of the zones are provided below:

1. **Healthy Fitness Zone** The goal in FITNESSGRAM is for children to achieve the Healthy Fitness Zone on as many assessments as possible. Because only modest amounts of activity are needed to obtain health benefits, most students who perform regular physical activity will be able to achieve a score that **will place them within or above the Healthy Fitness Zone** on most FITNESSGRAM test items. If children are in the Healthy Fitness Zone they are considered to have sufficient fitness for good health.

2. **Needs Improvement** (NI) indicates that if the student continues to track at this level there is the potential for future health risks. However, this potential is **possible,** not probable. Increased activity as well as eating a healthy controlled diet could delay or reverse this potential risk. Children in the Needs Improvement Zone receive messaging on their FitnessGram reports explaining how they should strive to move into the HFZ.

3. **Needs Improvement - Health Risk** indicates that if the student continues to track at this level there is a clear potential for future health problem (**a more probable risk)**. The need for increased activity and eating a healthy diet is more urgent for students in this category than those at Needs Improvement. Children in the NI-Health Risk Zone receive messages warning them of probable risk if they continue tracking at this level. The use of three zones allows clear indicators of risk (NI-Health Risk) and clear indicators of good fitness and low risk (HFZ).

Overview of AEROBIC CAPACITY & BODY COMPOSITION

Both body composition and aerobic capacity have particularly important influences on health but the effects are generally considered to be independent. People who are physically active will generally have higher levels of aerobic fitness and lower levels of fatness. However, it is possible for youth to be overweight and still be aerobically fit or for youth to be of normal weight and be aerobically unfit.

Aerobic capacity does not directly impact body composition, but body composition is a critical factor in the exercise performances used to estimate aerobic capacity. Individuals who carry more body fat will often perform more poorly than if they had less body fat. Therefore, the two dimensions are related, but still independent. Individuals with low aerobic capacity should be encouraged to be more active to improve their aerobic capacity (and possibly their body composition). Individuals with unhealthy body composition are also encouraged to be more active, but a healthy low calorie diet is also important for changing body composition.

Body composition and aerobic capacity are clearly linked, resulting in the need to use a common health indicator, and preferably one that reflects an overall indicator of health, for the Healthy Fitness Zone standards in two areas. The presence of metabolic syndrome was selected as the primary outcome variable for determining appropriate aerobic capacity and body composition standards since it is related to both indicators. Metabolic syndrome is characterized as a clustering of risk factors that influence risk for diabetes as well as cardiovascular disease. The five risk factors that are incorporated into metabolic syndrome include:

4. high fasting glucose,
5. high waist circumference,
6. high triglycerides,
7. low high density lipoprotein cholesterol, and
8. high blood pressure.

Additional information on the research and development of the FITNESSGRAM standards can be accessed from the reference guide.