

## **Lesson 2 - Recommendations on Physical Activity**

### **Global Physical Activity Guidelines by the World Health Organization**

The World Health Organization has developed comprehensive physical activity guidelines based on extensive scientific evidence. These guidelines provide specific recommendations for different age groups and populations to achieve optimal health benefits. Understanding these guidelines provides a foundation for counseling patients and developing appropriate physical activity prescriptions.

#### **General Principles of WHO Guidelines**

Several overarching principles guide the WHO physical activity recommendations. The principle that regular activity is better than none emphasizes that any amount of physical activity is better than being sedentary. Even small amounts of physical activity offer health benefits, and the greatest relative benefits occur when moving from no activity to even small amounts of activity. This principle is particularly important for encouraging previously inactive individuals to begin some form of movement, as it reduces the psychological barrier of thinking that only substantial amounts of activity are worthwhile.

The principle that health benefits increase with activity volume recognizes that more physical activity generally leads to greater health benefits. Benefits follow a dose-response relationship, though with diminishing returns at very high levels of activity. The relationship is not linear, with the steepest gains occurring when moving from inactivity to moderate levels of activity. This means that helping inactive individuals become moderately active produces greater relative health improvements than helping already active individuals become highly active, though both are valuable.

The principle that all physical activity counts acknowledges that activities across all domains contribute to health benefits. Leisure-time activities, transportation, occupational activities, and household chores all contribute to total physical activity. Both structured exercise and incidental movement throughout the day are valuable, meaning that health benefits can be accumulated through various types of activities rather than requiring formal exercise sessions. This principle makes physical activity more accessible by validating the health value of activities that people may already be doing or can easily incorporate into their daily routines.

#### **WHO Guidelines for Adults (18-64 years)**

For adults aged 18-64 years, the WHO provides specific recommendations for both aerobic and muscle-strengthening activities. Adults should accumulate at least 150-300 minutes of moderate-intensity aerobic physical activity per week, or at least 75-150 minutes of vigorous-intensity aerobic physical activity per week, or an equivalent combination of moderate

and vigorous-intensity activity throughout the week. This range recognizes that some health benefits accrue at 150 minutes weekly, with additional benefits up to 300 minutes. Activity should be spread throughout the week rather than concentrated in one or two days, as this distribution provides more consistent physiological stimulation and reduces injury risk.

In addition to aerobic activity, adults should perform muscle-strengthening activities involving major muscle groups on 2 or more days per week. These activities should be of moderate or greater intensity, meaning they should challenge the muscles sufficiently to promote strength gains. Examples include resistance training with weights, weight machines, or resistance bands, bodyweight exercises like push-ups, squats, and lunges, and heavy gardening or manual labor involving lifting. The combination of aerobic and muscle-strengthening activities provides comprehensive health benefits that neither type alone can fully achieve.

The guidelines also note that adults may increase moderate-intensity aerobic physical activity to more than 300 minutes per week, or engage in more than 150 minutes of vigorous-intensity aerobic physical activity for additional health benefits. This acknowledges that while 150-300 minutes provides substantial benefits, higher volumes can produce further improvements for those who are able and willing. Additionally, adults should limit the amount of time spent being sedentary and replace it with physical activity of any intensity, recognizing that reducing sedentary time is valuable even when replaced with light-intensity activities.

### **WHO Guidelines for Older Adults (65 years and above)**

Older adults should follow the same basic recommendations as adults aged 18-64 years regarding aerobic and strength training. However, there are additional considerations specific to this age group. Older adults should perform varied multicomponent physical activity emphasizing functional balance and strength training at moderate or greater intensity on 3 or more days a week. These activities help prevent falls and improve functional capacity, which are critical concerns for maintaining independence in older age.

The guidelines recognize the need for adaptations based on ability level. Older adults should be as physically active as their abilities and conditions allow, acknowledging that health status varies considerably in this age group. For those beginning a physical activity program, they should start with small amounts of physical activity and gradually increase duration, frequency, and intensity over time. This gradual progression reduces injury risk and allows the body to adapt to increased activity demands. Even light-intensity activity is beneficial for older adults with limited mobility, meaning that any movement is valuable even when moderate or vigorous intensity is not possible.

### **WHO Guidelines for Children and Adolescents (5-17 years)**

Children and adolescents have higher activity requirements than adults, reflecting their developmental needs and typically higher energy levels. They should do at least 60 minutes of moderate to vigorous-intensity physical activity daily. Most of this physical activity should be aerobic, involving continuous movement that elevates heart rate and breathing.

Vigorous-intensity activities, including those that strengthen muscle and bone, should be incorporated at least 3 days per week. These activities might include running, jumping, climbing, or sports that involve these movements.

The guidelines emphasize developmental considerations in selecting appropriate activities. Activities should be enjoyable and developmentally appropriate, matching children's interests and capabilities. Programs should include a variety of activities that promote motor skill development, as childhood and adolescence are critical periods for developing movement competencies that support lifelong physical activity. Play-based physical activity is particularly important for younger children, as it promotes natural movement patterns while being intrinsically motivating.

## **WHO Guidelines for Pregnant and Postpartum Women**

Pregnant and postpartum women have modified recommendations that account for the physiological changes and considerations of pregnancy. They should do at least 150 minutes of moderate-intensity aerobic physical activity throughout the week. They should incorporate a variety of aerobic and muscle-strengthening activities to maintain overall fitness. As with other populations, they should limit the amount of time spent being sedentary, as prolonged sitting can be particularly uncomfortable during pregnancy and may increase risk of complications.

Special considerations apply during pregnancy and the postpartum period. Women who were regularly physically active before pregnancy can continue their activities with appropriate modifications as pregnancy progresses. However, they should avoid activities with a high risk of falling or abdominal trauma, such as contact sports, downhill skiing, or horseback riding. Women should consult healthcare providers before beginning or continuing vigorous-intensity activities, particularly if they were previously inactive or have pregnancy complications. The postpartum period requires gradual return to activity, with the timeline depending on delivery method and any complications.

## **WHO Guidelines for People with Chronic Conditions and Disabilities**

The guidelines emphasize an inclusive approach that recognizes physical activity benefits people with chronic conditions and disabilities. Adults with chronic conditions should follow the same guidelines as the general adult population when able, as physical activity often helps manage their conditions. However, they may need to adjust the type and amount of physical activity according to their capabilities and specific health risks. This might involve selecting

activities that avoid exacerbating symptoms, modifying intensity or duration, or choosing activities that accommodate physical limitations.

An individualized approach is essential for this population. When unable to meet the recommended levels, individuals should be as physically active as their abilities and conditions allow, as even small amounts of activity provide health benefits relative to being inactive. They should work with healthcare providers to determine appropriate types and amounts of physical activity, considering disease-specific risks and precautions. This collaborative approach ensures that physical activity recommendations are safe and appropriate while maximizing potential benefits.

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