CONNECTING THE PIECES

Healthy Physical Activity

Jan. 31-Feb. 2, 2018 • Horseshoe Bay Resort, Horseshoe Bay
Objectives

1. What is the importance of physical activity?
2. Why do we track steps accurately; why do we track activity at all?
3. Identify the American Council on Exercise (ACE) standards for physical activity.
4. How can we meet the guidelines without traditional exercise?
What is Physical Activity?

• Definition:

1c. any bodily movement produced by skeletal muscles that requires energy expenditure – including activities undertaken while working, playing, carrying out household chores, travelling, and engaging in recreational pursuits. (World Health Organization)
Why Physical Activity is Important!!

• Physical **inactivity**: 4th leading risk factor for global mortality causing an estimated 3.2 million deaths globally.

• **Insufficient** physical activity: a key risk factor for noncommunicable diseases like cardiovascular diseases, cancer and diabetes.

• **Sufficient** physical activity: will improve reduce the risk of hypertension, coronary heart disease, stroke, diabetes, various cancers and depression.
Why Physical Activity is Important!!

- A **sedentary lifestyle**: could result in weakened bones or osteoporosis diagnosis; bones need to be placed under healthy stress to grow stronger.

- **Positively**, weight-bearing exercise, such as walking, provides healthy stress to bones allowing regeneration of bone tissue.

- **Progressively**, weight control is more feasible.

- **Helpfully**, mental health and mood are enhanced.
How do you know??!!
The American Council on Exercise

It starts with movement!

Beliefs: *movement is at the core* of what it means to feel healthy and alive. *Every step, jump, or lap puts people on the path toward a more active, and fulfilling life.* Whether that means an afternoon walk, an invigorating dance class, or a heart-pounding set of squats, *movement is vitally important.* In fact, it's so important that we've made it our mission to **Get People Moving!**
The American Council on Exercise

Standards for physical activity per week:

• at least **150** minutes of **moderate-intensity** physical activity where heart rate ≥50%

• at least **75** minutes of **vigorous-intensity** physical activity where heart rate ≥75%

• an equivalent combination of **moderate and vigorous-intensity** activity 30 mins per day 3 times/wk
  • This could be any activity that combines both intensities
For additional health benefits:

- **increase** moderate-intensity physical activity to 300 minutes/wk

- **muscle-strengthening activities** should be done involving major muscle groups on 2+ days/wk

- **stretching** should be done 2+ days/wk
HOW? I Don’t Have Time!!

Can't we just all agree that there needs to be more than 24 hours in a day?
Why Devices?  
Why Track Accurately?

1. Heart rate monitors are used primarily to assess and monitor exercise intensity. Intensity matters!
2. Gain detailed information about the frequency, duration, intensity, and patterns of movement.
3. They are intentionally designed to change a person’s attitude or behavior and increase social interaction.
4. Trends are tracked and have multiple uses.
How the Trends Help

• Habits become learned behaviors
• Data can be used to track progress towards standards
• Pedometer-based walking increases physical activity which improves health factors
• Pride is in the proof (YES! You did it)
• Especially useful for monitoring exercise intensity of individuals in cardiac rehabilitation programs - trackers provide beats per minute (BPM)
Training Zones

$(220 - \text{Age}) \times \% = \text{Target HR or BPM}$

$\text{VO2 Max} = 220 - \text{Age}$

- **Fat Burn** = 35-50% of VO2 Max
- **Endurance** = 51-75% of VO2 Max

Passed this point – the body no longer focuses on fat burn!

- **Threshold** = 76-90% of VO2 Max
- **VO2Max Range** 91-100%
Cardiovascular disease
Risk of heart disease and stroke is reduced in active people. Increasing exercise also helps people who have already got a heart condition.¹

Blood Pressure
Activity lowers high blood pressure and reduces fat levels, such as cholesterol, in the blood.

Joint Problems
Doing more can improve joint pain and movement in people with osteoarthritis and rheumatoid arthritis. Doing nothing at all makes joints worse.

Cancer
People, who have had cancer, enjoy a better quality of life if they are physically active than those who are not. Physical function and mental health improves during and following cancer treatment.

Breast and Colon Cancer
There is a lower risk of these cancers in regularly active adults.

Diabetes
The risk of Type II Diabetes is reduced by 30 to 40% in moderately active people compared with those who do very little. Diabetes control is better in people diagnosed with diabetes too.

Bone and Muscle Health
Older active adults have fewer falls. Risk of hip fracture is also reduced and everyday activities become easier to do.

Mental Health
Activity prevents some types of dementia. It also eases stress, boosts energy, general well-being and self-esteem. Regular exercise is also seen to improve depressive symptoms in those with a diagnosis of depression.²

Obesity
Physical activity helps people maintain a stable weight over time. Remember that being active is good for your health regardless of whether you lose weight or not.

Cardiovascular Disease & Physical Activity

**Intensity data**, expressed as a percentage of maximal heart rate (VO2max), satisfies the criteria to infer a causal relationship from epidemiological evidence for [*habitual physical activity*](https://example.com) and preventing cardiovascular diseases.

- Data from the American Heart Association has supported studies that show a strong relationship of decreasing CAD rates with increasing levels of activity.
Diabetes & Physical Activity

There is evidence that keeping fit reduces the risk of type 2 diabetes. *(American Heart Association)*


- Women who engage in **vigorous exercise** at least once per week have proven an age-adjusted relative risk to non-insulin dependent diabetes.
Cancer & Physical Activity

There is evidence that keeping fit reduces the risk in cancers of the breast and colon. (American Council on Exercise)

An analytic cohort included 6160 women who were free of breast cancer at the beginning of a study that lasted 20 years. A total of 138 women developed breast cancer between 10-20 years whereas consistently high (versus consistently low) recreational physical activity was associated with a 67% reduction in breast cancer risk; and this was without regard to weight history.

(Breslow RA, Ballard-Barbash R, Munoz K, et al.)
How do we increase physical activity?

Health & social care

Increased physical activity

Communications / public education

Education

Sport & recreation

Transport & environment

The workplace

Urban design & infrastructure

NOW WHAT?

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You Get To Choose!!

I GET TO

-VS-

I HAVE TO
Traditional Physical Activity

- Yoga
- Pilates
- Strength Conditioning
- Running (Cardio Programs)
- Organized Calisthenics
- Muscular Endurance Training

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Nontraditional Physical Activity

• Tabata
• Skating
• Routine household chores/cleaning (YES!)
• Routine Gardening
• Dancing/ Dance Classes (not only at a gym)
• Any sport including golf, bowling and swimming
• Leisure/Nature walking or biking trail
What is a Tabata?

- Tabata training was discovered by Japanese scientist Dr. Izumi Tabata and a team of researchers from the National Institute of Fitness and Sports in Tokyo.
  - Workout hard for 20 seconds
  - Rest for 10 seconds
  - Complete 8 rounds (less for a beginner)
  - You can do pretty much any 4 exercises you wish
Tabata Plan

1. Bird Dog
2. Wall Pushup
3. Hip Raises
4. Pushup knee kick

Rotate 1-4 for 8 rounds; 20 seconds of exercise with 10 second rest intervals
There’s an APP for that!

Tabata Timer for HIIT

Easy To Use
Create Your Own Custom Timer
Clear Display

The Tabata Timer is an easy to use app for high intensity interval training (HIIT). It helps you to do Tabata Training.
A one mile walk should range from 13-17 minutes and about 2,000 steps

10,000 steps per day + physical activity
https://www.youtube.com/watch?v=tj4ew7n42Bg

I only want 0:00 to 1:12 to play
How many Days per week do you?

In 15 minutes, you could burn more than 90 calories.

In 30 minutes, you could burn 77 calories.
YOU HAVE TO GET UP EVERY MORNING & SAY TO YOURSELF, "I CAN DO THIS."

even at work 😊
Sources

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• Cancer & Physical Activity: http://europepmc.org/abstract/med/14600545
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