

WE ARE GOING BACK..

The Pulse Generator is once again returning to Anamaya, Costa Rica for a week long yoga retreat and you're invited! This program is open to all AHS and Covenant employees as well as their family and friends.

For all the details on this Destination Fitness Program, please review the attached information! If you do have additional questions, or to reserve your space, please contact Joan Radford at Joan.Radford@ahs.ca

PERSONAL TRAINING

Personal training is available at all Pulse Generator locations. Our personal trainers are all certified and have years of experience training people of all abilities and physical activity experience.

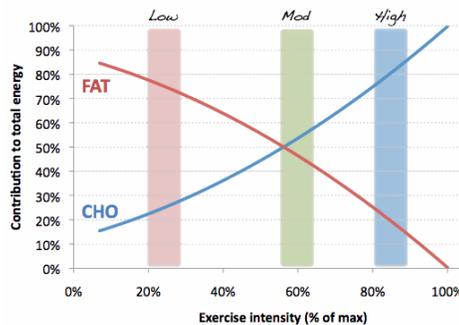
Contact Pulsegen@ahs.ca if you are interested in personal training.



More Intensity = More Fat Loss

"The Fat Burning Zone"

Everyone has heard of the "fat burning zone" and that it is the optimal way to lose excess body fat. To understand the fat burning zone myth, you need to understand how your body uses energy during exercise. To keep things simple, during exercise your body draws energy from two places: fat or glycogen stores. The fat burning zone is a physiological state elicited by long, low intensity training, however, it has been misinterpreted with regards to training for fat loss. During light to moderate intensity exercise (40 – 60% VO₂ Max) the body uses fat as an energy source at a higher percentage than that of high intensity exercise (70– 90% VO₂ Max).



While this looks great, it does not give the whole picture of what is occurring on a larger scale within your body. Total caloric expenditure must be accounted for when examining exercise intensity

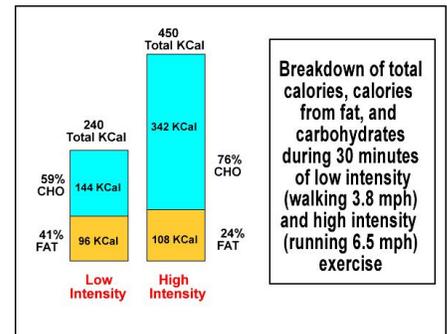
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So here's what the breakdown looks like assuming 30 minutes of exercise for a low vs. high intensity group. The high intensity group will likely burn double the calories as the lower intensity group, or 240kcal vs. 450kcal



So now you can see you burn more fat calories at a higher exercise intensity than a lower exercise intensity (140 vs. 120) despite a smaller percentage of fat being burned. But I know you need more convincing because the higher intensity exercise represents only a 20% difference in fat calories burned for a 50% increase in intensity

The Fat Burning Zone Has No Afterburn Effect

When you exercise at low exercise intensities, you burn very few calories after the exercise is completed. When you exercise intensely, such as during a HIIT workout, there is a metabolic disturbance that burns calories after the workout is completed. This is known as the afterburn effect (or **E**xcess **P**ost-exercise **O**xygen **C**onsumption)

High intensity exercise afterburn can increase calories burnt by nearly 5 X!

Current Industry Trends

1. Obstacle style races
2. Ultimate Frisbee
3. Boxing and Kickboxing
4. Functional Training
5. Cognitive/ Mind Training
6. HIIT (High Intensity Interval Training)
7. Wearable Tech/ Phone Apps
8. Beat or Drum Classes
9. Fusion workouts
10. Rowing

Looking for something a little different this year? Maybe try out one of these hot fitness ideas or perhaps a revuninated classic.



Basal Metabolic Rate (BMR)

What is BMR? How can I utilize it to maintain or lose weight?

Basal Metabolic Rate

Your basal metabolic rate is the amount of energy (Kcals) required to sustain the body's vital functions in the waking state, when you are in a fasted condition, at normal body and room temperature, and without psychological stress. Simply put... it is the amount of energy your body requires to do nothing all day.

This is an important number to know as this is a starting point from which to calculate where your caloric intake should be for your goals (negative, neutral, or positive caloric balance)

Below are the formula's for basal metabolic rate:

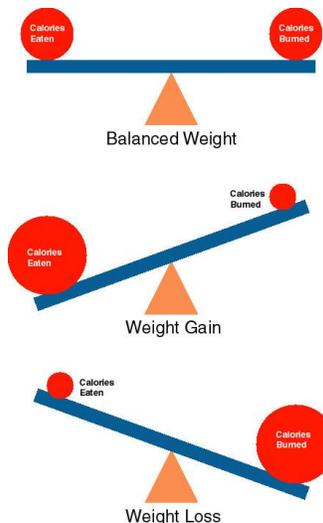
*please note height and weight need to be inputted with metric values.

Males: $88.362 + (4.799 \times \text{Height}) + (13.397 \times \text{Weight}) - (4.330 \times \text{Age})$

Females: $447.593 + (3.098 \times \text{Height}) + (9.247 \times \text{Weight}) - (4.330 \times \text{Age})$

Maintaining Body Weight

To calculate the calories you need to maintain your current weight, multiply your BMR by an activity factor. If you do not exercise and have a desk job, your activity factor is 1.2. If you exercise one to three days a week, your activity factor is 1.375. If you exercise three to five days a week, your activity factor is 1.55. If you're involved in sports and exercise six to seven days a week, your activity factor is 1.725. If you're training for a marathon or have a physically demanding job, your activity factor is 1.9.



Using BMR for Weight Loss

Eating fewer calories than your body needs to function will result in weight loss. To lose 1 pound a week, reduce your daily intake by 500 calories. While the BMR provides the number of calories your body uses for basic functions, the other factors that affect calorie needs, including activity and the thermic effect of food, also account for part of your total calorie needs.

So, for example, a 41-year-old woman with a BMR of 1,388 calories who exercises three days a week needs 1,909 calories to maintain her weight: $1,388 \times 1.375 = 1,909$. Subtract 500 calories, and she needs 1,409 calories to lose 1 pound a week.

PHYSICAL LITERACY

What is Physical Literacy?

The technical definition is: Physical literacy is the motivation, confidence, physical competence, knowledge and understanding to value and take responsibility for engagement in physical activities for life. However, physical literacy is merely about developing the fundamental movement skills that people need, such as running, hopping, throwing, catching and jumping. These movement skills in turn give individuals the confidence to participate in different physical activities, sports, and physical activities. In the same way a child learns to speak by interacting with their parents from an early age, the same is true of learning to move with confidence.



Physical literacy impacts many areas of our lives. For example, competent movers tend to be more successful academically and socially. They understand how to be active for life and are able to transfer competence from one area to another. Physically literate individuals have the skills and confidence to move any way they want.

Physical literacy is the first step in initiating a healthy and active lifestyle. Many of the skills outlined are first experienced at a young age, however, it is never too late to learn new skills, movements, and motivational tools.

If you are interested in learning more about physical literacy, contact Matt at: matthew.thomas@ahs.ca



Physical Literacy Assessment

Physical Literacy assessment is coming to the Pulse Generator!

Keep an eye out for dates and locations at your site.

If you are interested in having the assessment come to your site, contact Matt at matthew.thomas@ahs.ca

SOFTWARE

According to a recent study, participants who used fitness apps were much more active compared to nonusers and—get this—even had a lower body mass index.

The study's authors believe apps help people overcome barriers like a lack of understanding or organization, which leads to better exercise habits. Over time, these improved habits can mean big changes.



This Month's Scientific Q&A

Q: How do I squat properly to avoid back and knee pain?

A: . 1. Stand with feet about hip-distance apart or wider, toes turned out just slightly.
2. Pull your belly button towards your spine and contract your abdominal muscles while pulling the shoulders down and away from your ears.
3. Shift your weight into your heels and bend at the hips, starting to push the hips towards the wall directly behind you.
4. As you bend at the hips, your knees and ankles will also bend. As you lower the hips, your knees will start to go forward. This is normal, but don't let them go too far. Keep your abs engaged to hold your balance and focus more on sending the hips back than bending the knees forward.
5. Continue to lower your hips as low as you can or until your thighs are parallel to the floor.
6. If you can, go down until your butt is in line with your knees. If you can't go down that low, go as low as you can.

7. Take a moment and look down make sure your knees are in line with your toes and that your ankles
8. Try to keep your body weight balanced between the balls and heels of both feet. If you look at yourself from the side, your shinbone will be parallel with your torso.
9. Keeping the abs engaged, back flat and chest up, slowly push your body back to starting position.
10. At the top of the movement, keep a slight bend in the knees rather than locking them, which isn't always great for the knees.

