



# FITNESS & NUTRITION EXPERT PROGRAM

## FITNESS SESSION 1:

The basics



## What we are going to cover



### **FACTORS THAT AFFECT FITNESS**

- Affect the direction of fitness, the market, and challenges you may face

### **BEING A HEART CENTERED FITNESS PROFESSIONAL:**

- The Golden Circle

### **CREATE YOUR OWN FITNESS PHILOSOPHY**

- Let's do a FUN SHEET!

### **CODE OF ETHICS FOR FITNESS PROFESSIONALS**

- Understand what being a fitness professional encompasses from an ethical standpoint

## What we are going to cover



### **THE COMPONENTS OF FITNESS**

- Learn the primary and secondary components of fitness

### **FITNESS LINGO**

- Learn what the heck all these words mean!





## What you need before we start

1. Water
2. Put your finger tips together
3. Take 3 deep breaths



## Factors currently affecting fitness

### 1. AGE

- Dealing with an aging demographic (lots of baby boomers & seniors)
- Important to take into consideration when building program, mobility, etc
- Huge opportunity in this market

### 2. OBESITY EPIDEMIC

- BMI of 18.5 – 24.9 considered normal weight. Overweight is a BMI of 25- 30. Obesity is a BMI of 30.
- Worldwide obesity has nearly tripled since 1975.
- In 2016, more than 1.9 billion adults, 18 years and older, were overweight. Of these over 650 million were obese.
- 39% of adults aged 18 years and over were overweight in 2016, and 13% were obese.
- Most of the world's population live in countries where overweight and obesity kills more people than underweight.
- 41 million children under the age of 5 were overweight or obese in 2016.
- Over 340 million children and adolescents aged 5-19 were overweight or obese in 2016.
- Obesity is preventable.



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Fitness and an aging demographic: <http://publications.gc.ca/Collection/H39-612-2002-4E.pdf>

Source World Health Organization: <https://www.who.int/en/news-room/fact-sheets/detail/obesity-and-overweight>

Raised BMI is a major risk factor for noncommunicable diseases such as:  
cardiovascular diseases (mainly heart disease and stroke), which were the leading cause of death in 2012;  
diabetes;  
musculoskeletal disorders (especially osteoarthritis – a highly disabling degenerative disease of the joints);  
some cancers (including endometrial, breast, ovarian, prostate, liver, gallbladder, kidney, and colon).

The risk for these noncommunicable diseases increases, with increases in BMI. Childhood obesity is associated with a higher chance of obesity, premature death, and disability in adulthood. But in addition to increased future risks, obese children experience breathing difficulties, increased risk of fractures, hypertension, early markers of cardiovascular disease, insulin resistance, and psychological effects.

## Factors currently affecting fitness

### 3. TIME

- One of the largest barriers to fitness is lack of time
- We want a quick fix!
- Affects the way fitness professionals communicate and motivate clients
- HIIT more popular, short workouts, etc

### 4. TECHNOLOGY

- Awesome online tools to motivate clients (ie myfitnesspal, fitbit, apps, etc)
- Online and remote training programs are on the rise!
- Can be distracting
- Screen Time is at an all time high



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## Factors currently affecting fitness



### 5. OTHER PHYSICAL BARRIERS

- Social circles are not active
- Fear of injury
- Lack of Skill
- Weather (depending where you live, this can be a big deterrent!)
- Travel - in their personal life or distance to get to activities
- Lack of education – they just have no idea what to do, how to exercise or how to eat



## Factors currently affecting fitness

### 6. DISCONNECTION

- We are stressed, disconnected, depressed, and anxious
- Many people are not living their true purpose
- Lack of self love
- They don't connect the dots between physical fitness, activity, and mental/spiritual health
- They don't have a big enough "WHY" yet
- Cycle continues to our kids and our communities!
- We need to change our perception!



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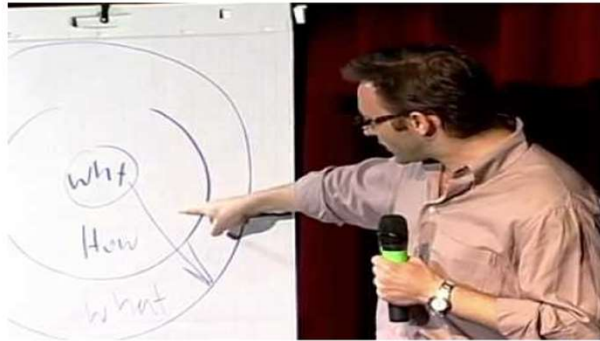


## A fitness and nutrition expert is a “heart centred professional”

As much as we need to understand how, it is even more important to understand why!

- Why we are in this profession
- What we are bringing to the world
- Why our clients are coming to us
- What our clients need from us
- How we can bring value to the world...and do it everyday!

## TED Talk – “The Golden Circle”



[THE GOLDEN CIRCLE](#)  
By Simon Sinek, TED Talks

## The Golden Circle



**Why = The Purpose**

*What is your cause? What do you believe?*

**How = The Process**

*Specific actions taken to realize the Why.*

**What = The Result**

*What do you do? The result of Why. Proof.*

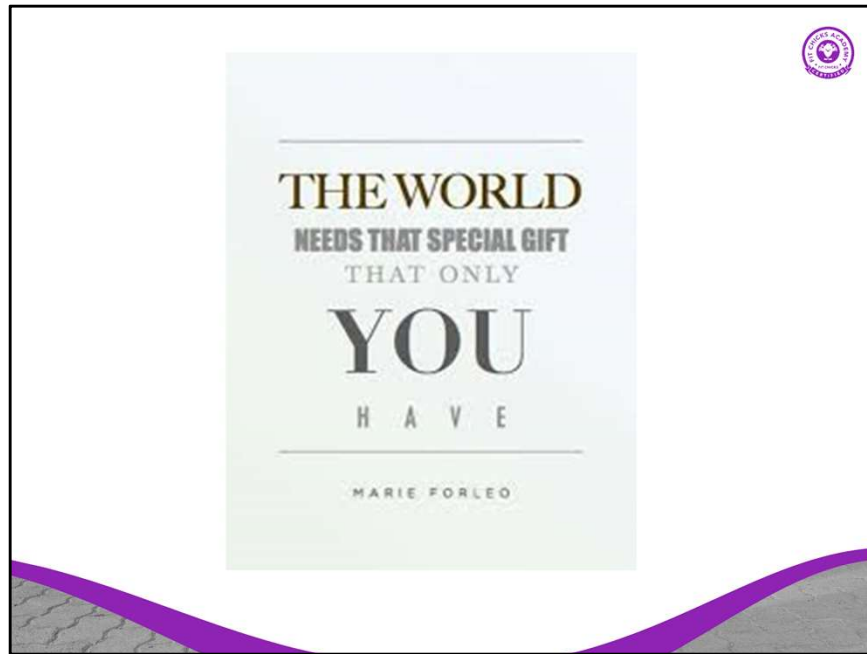


## How the Golden Circle applies to FIT CHICKS.

**WHY:** We believe that it is every women's right and calling to live their most amazing, happiest, healthiest life, and thrive in everything they do. We believe health, wellness & fitness gives women the mental and physical strength to succeed in all aspects of their lives.

**HOW:** The way we do this is by physically and mentally challenging women to reach their potential but to always be inclusive, positive, and conducted in a supportive environment

**WHAT:** They just happen to be fun, fierce workouts & programs for women at all levels of fitness



No self doubt

You may be asking yourself, but I have no special gifts. EVERYONE has special gifts! It is the unique blend of talents, experience and perspective that only YOU have from living and viewing the world through your eyes

Think about your favorite pizza restaurant....there are a million pizza restaurants! But what makes it different?

I am not Jillian Michaels  
I am not an athlete

But from my experience in life



Thoughts without  
action are  
irrelevant....

**It's time to TAKE  
ACTION!**









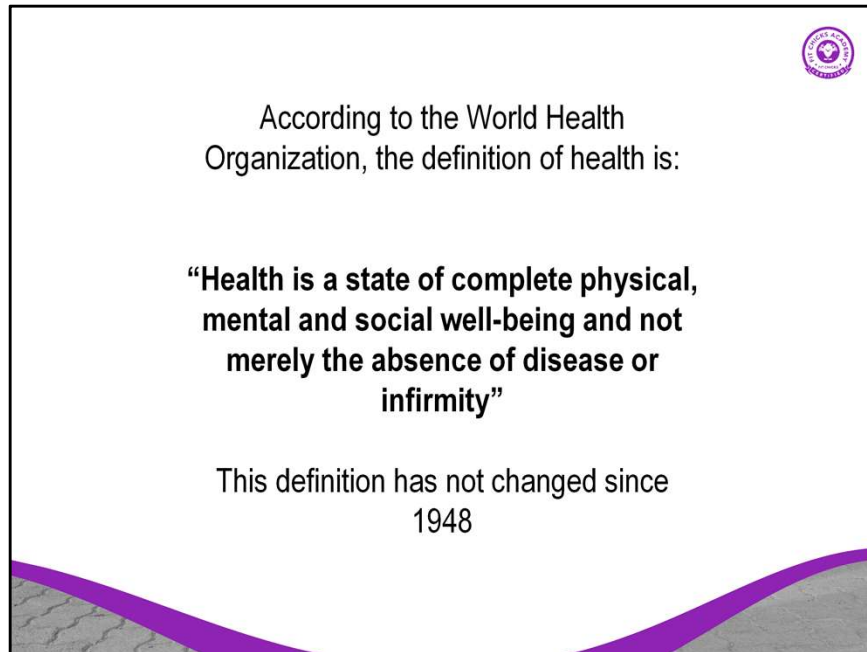
## **Code of ethics for Fitness & Nutrition Experts**

(To print off, please see FNE Professional Standards & Code of Ethics under Members Site)



# Components of Fitness





Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19-22 June, 1946; signed on 22 July 1946 by the representatives of 61 States (Official Records of the World Health Organization, no. 2, p. 100) and entered into force on 7 April 1948.

## Components of fitness

We all have different goals when it comes to fitness (ie strength gains, weight loss, lowering blood pressure, etc)

### There 11 recognizable components to fitness

These are broken down into 2 categories:

1. Primary (5 components – Health Related )
2. Secondary (6 components- Skill Related)

The term "components" of fitness is meant to define a group of functions that condition the body



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Source Can Fit Pro & Human Kinetics There are five primary components of physical fitness and they are considered essential in improving physical health. They ensure optimal performance of daily activities from doing laundry to running

## Primary components of fitness

The 5 primary components of physical fitness are:

1. Cardiorespiratory Capacity
2. Muscular Strength
3. Muscular Endurance
4. Flexibility
5. Body Composition

### Why are these important?

- They are essential in IMPROVING physical health (you can't have one and not the others!)
- They make sure we can perform our daily activities (ie walking, climbing stairs, picking up the toys)

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Source: <http://www.newhealthguide.org/Components-Of-Fitness.html>

Source: Integrated Nutrition 14<sup>TH</sup> Edition

Source: ACSM's Complete Guide to Fitness & Health 2nd Edition Paperback – Feb 9 2017

by Barbara Bushman (Author), American College of Sports Medicine (Editor)

There are five primary components of physical fitness and they are considered essential in improving physical health. They ensure optimal performance of daily activities from doing laundry to running.

## Primary Components of Fitness #1

### Cardiorespiratory Capacity / Endurance

- This is the body's ability to inhale oxygen, distribute to the cells, and create energy (ATP)
- It's all about health of the heart
- Cardio Endurance is defined by the length of time a person can remain active with an elevated heart rate—that is, the ability of the heart, lungs, and blood to sustain a given demand
- Cardiorespiratory endurance reflects the health of the heart and circulatory system, on which all other body systems depend.
- Positive effects include improved endurance, respiratory capacity, and reducing heart disease

### Exercises to improve this area

- Anything that increases the heart rate!
- Powerwalking, jogging, climbing stairs, rowing, etc
- Awesome to help you conduct challenging tasks



Cardiorespiratory capacity can be defined as the body's ability to inhale oxygen, distribute it to the cells and effectively use it to create energy. This component is all about the health of the heart and improved cardiorespiratory function could reduce the risk of developing cardiovascular disease and resting heart. Its positive effects include improved endurance and respiratory capacity. These exercises basically increase the heart rate to help you conduct challenging tasks.

The Cooper Run (running as far as possible in 12 minutes) is a test commonly used to assess cardiovascular endurance, but many trainers use the Step Test (stepping onto a platform for 5 minutes). Both are accurate measures of a subject's cardiovascular endurance.

Source: Integrated Nutrition 14<sup>th</sup> edition

**Cardiorespiratory Endurance** The length of time a person can remain active with an elevated heart rate—that is, the ability of the heart, lungs, and blood to sustain a given demand—defines a person's cardiorespiratory endurance. Cardiorespiratory endurance training improves a person's ability to sustain vigorous

activities such as running, brisk walking, or swimming. Such training enhances the capacity of the heart, lungs, and blood to deliver oxygen to, and remove waste from, the body's cells. Cardiorespiratory endurance training, therefore, is *aerobic*, meaning oxygen requiring. As the cardiorespiratory system gradually adapts to the demands of aerobic activity, the body delivers oxygen more efficiently. In fact, the accepted measure of a person's cardiorespiratory fitness is maximal oxygen uptake (**VO<sub>2</sub>max**). The benefits of cardiorespiratory training are not just physical, though, because all of the body's cells, including the brain cells, require oxygen to function. When the cells receive more oxygen more readily, both the body and the mind benefit.

**Cardiorespiratory Conditioning** Cardiorespiratory conditioning occurs as aerobic

workouts improve heart and lung function. **Cardiac output** increases, thus enhancing oxygen delivery. The heart becomes stronger, and each beat pumps more blood. Because the heart pumps more blood with each beat, fewer beats are necessary, and the resting heart rate slows down. The average resting pulse rate for adults is around 70 beats per minute, but people who achieve cardiorespiratory

conditioning may have resting pulse rates of 50 or even lower. The muscles that work the lungs become stronger, too, so breathing becomes more efficient.

Circulation through the arteries and veins improves. Blood moves easily, and blood pressure

falls.<sup>28</sup> In short, cardiorespiratory conditioning:

- Increases cardiac output and oxygen delivery
- Increases blood volume per heart beat (stroke volume)
- Slows resting pulse rate
- Increases breathing efficiency
- Improves circulation
- Reduces blood pressure

Cardiorespiratory endurance reflects the health of the heart and circulatory system, on which all other body systems depend. To improve your cardiorespiratory endurance, activities must be sustained for 20 minutes or longer and use most of the large-muscle groups of the body (legs, buttocks, and abdomen). The level of training must be intense enough to elevate your heart rate.

A person's own perceived effort is usually a reliable indicator of the intensity of an activity. In general, workouts should be at an intensity that raises your heart rate but still leaves you able to talk comfortably. For those who are more competitive and want

to work to their limits on some days, a treadmill test can reveal the maximum heart rate. Workouts are safe at up to 85 percent of that rate. Table 14-2 (p. 444) includes the ACSM guidelines for developing and maintaining cardiorespiratory

fitness.



## Primary Components of Fitness #2

### Muscle Strength

- This is essential in generating force
- Muscular strength is a muscle's capacity to exert brute force against resistance.
- A common assessment of muscle strength is called the one repetition max. (Ex. Your ability to squat with a barbell weighing 200 lbs. for one repetition is a measure of your muscular strength.
- In daily life, you need muscular strength to pick up or push heavy materials
- Very important to conduct daily activities (like pulling, pushing, or holding anything)

### Exercises to improve this area

- It is built with heavy resistance training
- Weight training, holding heavy things, moving furniture, pushing cars, pulling ropes



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Muscle strength is essential in generating force. This is facilitated with heavy resistance training as well as challenging the muscles to pull, push and hold as much weight as they can. Muscular strength is required in activities such as weight lifting and sports like rugby and football where the players need to push against each other.

## Primary Components of Fitness #3

### ENDURANCE (Muscle)

- Ability to apply force on muscles for a longer duration
- It is needed for activities that are repeated & contractions require muscular endurance (or we gas out!)
- Very important muscular function because it enhances daily functions (ie walking, swimming, running, etc)

### Exercises to improve this area

- Muscle endurance exercises are high rep, lower weight & performed with repetitive resistance training

**Question - What about Bodybuilders?**



When it comes to muscular endurance, we are looking at the ability to apply force on the muscles for a longer duration of time. Endurance is an important muscular function and this is because it enhances daily functions such as paddling a boat, walking, swimming and running as well. These are activities that repeated and the contractions require muscular endurance. In fitness, muscle endurance exercises are referred to as high rep, low weight training and these are performed with repetitive resistance training.

The way to increase strength is to train with light weights, working in the 20 - 25 rep range. Working with lighter weight will train the muscle fibers needed for muscular endurance, and the higher rep range leads to a longer period of exercise.

## Primary Components of Fitness #4

### FLEXIBILITY

- Range of motion your joint or body is able to perform
- More flexible = less likely to be injured
- VERY IMPORTANT (and very overlooked!)

### Exercises to improve this area

- Stretching before and after your workout is SUPER important for safety + improving flexibility
- Yoga, foam rolling, etc



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ACSM's Complete Guide to Fitness & Health 2nd Edition Paperback – Feb 9 2017  
by [Barbara Bushman](#) (Author), [American College of Sports Medicine](#) (Editor)

Flexibility means the range of motion your joint or your body is able to perform. Being more flexible means you are less likely to get injured when performing exercises. Stretching before and after workout is essential for safe exercise and improving your flexibility.

Without flexibility, the muscles and joints would grow stiff and movement would be limited. Flexibility training ensures that your body can move through its entire range of motion without pain or stiffness.

## Primary Components of Fitness #5

### BODY COMPOSITION

- Body composition: Split into 2 components including fat free mass and fat mass
- Body Fat Free Mass: The mass of water, organs, blood, bone, & muscles
- Body fat mass: The percentage of fat (Adipose Tissue)

### How to improve this area

- Exercise + diet + hormone levels
- Focus on increasing lean muscle mass while decreasing body fat
- Important to have a healthy ratio of body fat / lean muscle to reduce risk in developing health conditions & increase your metabolic rate

**Beware of tests....how accurate are they?**

**Calibers, Scales, etc**

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Body composition is the percentage of lean body mass. Your body mass consists of water, organs, blood, bone and muscle. Your body fat percentage should be in a healthy range as this could help reduce the risk of developing conditions such as heart diseases. If you have a lower percentage of body fat, chances are high that you have a healthy lean muscle mass amount. Good body composition works to help increase your metabolic rate.

To view a body fat test with calibers, please visit  
<http://www.brianmac.co.uk/fatcent.htm>

Body fat composition refers to the amount of fat on your body. For example, a 100-pound person with a 25% body fat composition will have a lean body mass of 75 pounds.

### To qualify as fit:

Men must have a body fat composition lower than 17 percent

Women must have a body fat composition lower than 24 percent

The average man tends to have about 18 to 24 percent body fat, while the average

woman has 25 to 31 percent body fat.

Any program that neglects one or more of these types of fitness is NOT going to benefit your body in the long run. An effective fitness program will attempt to improve all five components of fitness!

## Secondary Components of Fitness

The 6 secondary components of physical fitness are:

1. Balance
2. Coordination
3. Agility
4. Reaction Time
5. Speed
6. Power

### Why are these important?

- Unlike focusing on improving physical fitness, these are skill related
- Focus on technical and tactical performance and activities.
- It doesn't matter how physically fit one is, neglecting these secondary components could negatively affect ones physical abilities.

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### Motor Fitness—Skilled Related Components

Skill related components are also referred to as the secondary components of fitness. They focus on technical and tactical performance and activities. It doesn't matter how physically fit one is, neglecting these secondary components could negatively affect ones physical abilities.

## Secondary Components of Fitness #1

### BALANCE

- This is the ability to maintain a precise position (ie standing, yoga poses, gymnastic activities)
- Gives you control over your body
- 2 types of balance: dynamic (moving) & static (holding still)

### Exercises to improve this area

- Dynamic examples: walking in a straight line
- Static examples: try balancing on one foot
- Challenge yourself with eyes closed

**CHICK TIPS:** Press your tongue on roof of your mouth or touch your belly button to find your centre!

Let's test our balance with "The Stork Test"

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### 1. Balance

This is the ability to maintain a precise position. Good examples of balance include maintaining stability when performing gymnastic poses. Balance gives you control over your body and there are two types of balance namely dynamic and static.

To view the Stork Test, please visit <http://www.brianmac.co.uk/storktst.htm>



## Secondary Components of Fitness

### #2 COORDINATION

- Ability to use all parts of the body cohesively
- Coordination basically means firing the right muscle fibers at the right time for a given physical task
- Example: basketball for hand eye coordination or kick boxing to use multiple body parts in different ways.

#### Exercises to improve this area

- Cariocas, line drills, obstacle courses, jumping rope
- Line dancing

**CHICK TIPS: Best to build coordination in personal training, not a super fancy footwork group class!**



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Coordination can be described as the ability to use all parts of the body cohesively to create a smooth and steady motion. Coordination creates movement with a purpose whereby the body utilizes its functions to achieve specific movement. For example, in ball games such as table tennis, hand-eye coordination is of essential importance.



## Secondary Components of Fitness #3

### AGILITY

- Ability to stay under control while change direction
- Used a lot in sports where you have to keep changing directions

### Exercises to improve this area

- Line drills, obstacle courses

**CHICK TIPS: Play Chick Sergeant Says!**



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Agility is the ability to stay under control while changing direction. Various sports require agility and these include tennis and rugby whereby the player has to constantly keep changing direction at good speed.

## Secondary Components of Fitness

### #4

#### REACTION TIME

- Amount of time taken to react to a stimuli
- Example - Easily identified with amount of time to react to a gun shot at start of a race or a "hut" in football
- Need a healthy brain for this!

#### Exercises to improve this area

- Brain games, throwing balls at someone, sound trigger movements

**CHICK TIPS:** Again, great to build in personal training but not in group classes!



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This is the amount of time taken to react to stimuli. It helps to train yourself to have a better reaction time and you need to have a healthy brain for this. Your reaction is very important and contributes to your success especially in sports where athletes need to be keen on sudden movements. A good example is in games such as football where the player must react immediately to a pass. This could be easily identified with the amount of time it takes for an athlete to react to a throw or a gun shot in the starting line of a race.

## Secondary Components of Fitness #3

### **SPEED**

- Different types of speed
- Defined as amount of time required to perform certain activities
- One of the most crucial fitness components because it is used in others such as reaction time, agility and coordination

### **Exercises to improve this area**

- Sprints, boxing, tennis



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There are different types of speed and this is can be defined as the amount of time required to perform certain activities. One could have leg speed such as Usain Bolt, hand speed which is evident in activities such as boxing or speed of thought with sports such as tennis. Speed is one of the most crucial fitness components, as it used in other components such as reaction time, agility and coordination.

## Secondary Components of Fitness

### #6

#### POWER

- Is a by-product of speed + strength (like a marriage of cardio + muscle strength!)
- We all need power to do our everyday activities.

#### Exercises to improve this area

- Plyometrics, short distance sprints...think explosive moves!

**CHICK TIPS:** Make sure you are properly warmed up before building power



Power is a by-product of speed and strength. We all need power to conduct our everyday duties and athletes in particular require a power filled training program so as to have an edge on various components in their sports. Short distance sprints, cycling uphill, and other activities that require explosive acceleration are all exercises that increase power. These exercises provide a great way to get the muscles and heart in top shape.



**Fitness  
Lingo  
...say what?**

## What are SETS and REPS?

**Sets** and **reps** are the terms used to describe the number of times you perform an exercise.

- **A rep is the number of times** you perform a specific exercise
- **A set is the number of cycles of reps** that you complete.
- For example, if you were to complete 15 push ups \* 2 cycles, you would say

"I am doing push ups for 2 sets of 15 reps"



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## What is this fitness equipment?



Reading from left to right:

Row 1: Dumbbells, barbells, resistance bands

Row 2: stability balls, medicine balls, bosu ball

Row 3: Gliders

All awesome, portable equipment for fitness classes AND personal training!

## What is resistance training?

**Resistance exercise** is any exercise where muscles contract against an external resistance with the objective of increasing strength, tone, mass, and/or muscular endurance.

The resistance can come from **dumbbells, weight machines, elastic tubing or bands, cinder blocks, cans of soup, your own body weight** (for example, pushups), or any other object that forces your muscles to contract.



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## What are compound exercises?



- Known as multi joint movements or exercises
- Include any exercise that engages two or more different joints to fully stimulate entire muscle groups and multiple muscles (think squats, chin ups, push ups)
- For example, the squat involves the [joints](#) of the knee, hip and ankle, and the muscles of the upper and lower legs and buttocks.



### ADVANTAGES

- They are functional!
- They burn more calories
- They add intensity
- They make your workouts more effective

## COMPOUND MOVEMENTS

Compound movements are also known as multi joint movements. They include any exercise that engages two or more different joints to fully stimulate entire muscle groups and multiple muscles. Examples include squats, deadlifts and chin-ups.

### ADVANTAGES

Compound movements are important in any exercise routine for a variety of reasons.

**They're [functional](#).** Compound exercises help strengthen your body the way it actually works in real life. (Such as picking up your kids, bending down to clean the floor or squat to get to the washroom) All these movements involve multiple joints, muscles and planes of motion so they help in everyday life.

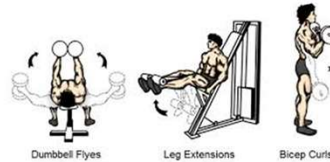
**They [burn more calories](#)** – Since compound movements use more than one body part, muscle and joint, they burn more calories.

**They add intensity to your workouts** - Compound exercises, by the very definition above, are more intense simply because you have to recruit more muscle groups to do the exercises with good form.

## What are isolation exercises?



- Involve one joint or one muscle group rather than multiple muscles and joints as in [compound movements](#).
- Help target specific muscle groups which is great for bodybuilding or for people who are healing an injury or muscular imbalance
- Best to do a combo of isolation and compound



### Examples of isolation vs. compound exercises:

- [Bicep curls](#) vs. [Power squat with hammer curls](#)
- [Leg Extension](#) vs. [squats](#)
- [Chest presses](#) vs. [pushups](#)
- [Tricep extensions](#) vs. [dips](#)

## ISOLATION EXERCISES

Isolation exercises are movements that involve one joint or one muscle group rather than multiple muscles and joints as in [compound movements](#).

Doing isolation exercises can help target specific muscle groups which is great for bodybuilding or for people who are healing an injury or muscular imbalance. A combination of compound and isolation moves is a great way to work the entire body and get more depth out of your strength training routine.

### Examples of isolation vs. compound exercises:

[Bicep curls](#) vs. [Power squat with hammer curls](#)

[Leg Extension](#) vs. [squats](#)

[Chest presses](#) vs. [pushups](#)

[Tricep extensions](#) vs. [dips](#)

<http://exercise.about.com/od/exerciseglossaryterms/g/Compound-Exercises.htm>

## What are isometric exercises?

Isometric exercises are also known as “holding an exercise” or static strength training. It involves contractions of a particular muscle or group of muscles.

### EXAMPLES OF ISOMETRIC EXERCISES

- Front plank
- Side plank
- V-sit
- Any exercise with a raise and hold for 10 -30 sec (ie calf raises, lateral shoulder raise)
- Any exercise with a lower and hold for at least 10 -30 sec (ie squats, low lunges, push up holds)



## ISOMETRIC

Isometric exercises are also known as “holding an exercise” or static strength training. Contractions of a particular muscle or group of muscles. While isometric exercises won’t really help in improving speed or athletic performance as they are done in a static position, they do have some awesome advantages:

### ADVANTAGES

- Great for general strength conditioning and to help rehabilitate muscles without putting stress on the joints
- Because isometric exercises are done in one position without movement, they'll improve strength in only one particular position (think holding a squat for a long time!)
- Awesome for mind body connection
- Build stabilizing muscles and help with balance
- Improve muscle endurance and tone

Isometric exercises may be helpful to someone who's been injured or has a condition such as arthritis, which could make movement painful or be aggravated by using

muscles to move a joint through the full range of motion. For instance, if you injure your rotator cuff, your doctor or physical therapist might initially recommend isometric exercises involving the group of muscles that helps stabilize the shoulder to maintain shoulder strength during recovery

## What are plyometric exercises?

- Also known as “jump training”
- High intensity, explosive exercises where [muscles](#) exert maximum force in short intervals of time
- Goal of increasing POWER (ie. strength & speed)
- Generally used by [athletes](#) to improve performance in sports

### ADVANTAGES

- Plyometrics burn a lot of fat and calories – some studies show you burn 10 calories a min doing plyometrics (that is 100 calories and hour!)
- Amazing to build muscle and cardio at the same time (2 amazing things for the price of 1)
- Build speed and strength
- Plyometric exercises are a great way to add some spice to a boring workout.
- Afterburn!



## PLYOMETRICS

Plyometric exercises are also known as “jump training”. They are high intensity, explosive exercises where [muscles](#) exert maximum force in short intervals of time, with the goal of increasing both speed and power. Plyos are generally used by [athletes](#) to improve performance in sports

**IMPORTANT, Safety First!** It is very important to make sure that you are safe when performing plyometric exercises. Since these exercises involve explosive movements (and level 3) they can put you at risk for injury if you are not careful. So make sure before you start that:

- Always include a good warm up before attempting these exercises
- Start slowly and with small movements and increase gradually
- Land as softly as possible on the balls of your feet and with knees slightly bent
- Perform exercises on a soft surface (grass, gym floor, carpet, etc)

## EXAMPLES OF PLYOMETRIC EXERCISES

Squat Jump: Squat as far as possible and jump off the ground.<sup>[10]</sup>

Lateral Jumps: From a standing position, jump side to side.<sup>[10]</sup>

Power Skipping: On each skip, lift the upper leg as high as possible.<sup>[10]</sup>

Tuck Jumps: With feet shoulder width apart, the athlete jumps, tucks his/her legs in, extends them, and lands.<sup>[10]</sup>

Alternate Leg Bounding: Run with long strides, placing emphasis on hang time.<sup>[10]</sup>

Box Jumps: Jump onto and off of a large box 18" or higher.<sup>[10]</sup>

<http://en.wikipedia.org/wiki/Plyometrics>

## What are supersets?

A superset is a technique where you perform 2 exercises in a row with little or no rest between sets.

A superset differs from a normal set in two ways:

1. It is performed with little to no rest between sets, whereas you may rest up to 90 seconds between two normal sets.
2. It incorporates two different [exercises](#), whereas a normal set has only one exercise



### **SUPER SETS**

A superset is a technique where you perform 2 exercises in a row with little or no rest between sets. A superset differs from a normal set in two ways. First of all, a superset is performed with little to no rest between sets, whereas you may rest up to 90 seconds between two normal sets. Secondly, a superset incorporates two different [exercises](#), whereas a normal set has only one exercise.



## Types of supersets

### 1. Same muscle group

- Pre exhaustion: compound followed by isolation.  
Example: For quads, squats (compound) followed by leg extension (isolation)
- Compound – 2 in a row  
Example: Squats followed by barbell step ups
- Isolation – 2 isolation back to back (tricep kick backs and rope pressdown)

### 2. Opposing muscle groups

Example: Working triceps and biceps. (ie Do 1 set of tricep kickbacks immediately followed by bicep curls.)

### 3. Staggered superset -

- Basically means doing an additional (and potentially unrelated) exercise in between sets .  
Example: Working triceps and cardio (ie triceps kickbacks for strength followed by 1 min sets of skipping with no rest in between)



## TYPES OF SUPERSETS

### Same muscle group

Pre exhaustion: compound followed by isolation.

Example: For quads, squats (compound) followed by leg extension (isolation)

Compound – 2 in a row

Example: Squats followed by barbell step ups

Isolation – 2 isolation back to back (tricep kick backs and rope pressdown)

### Opposing muscle groups

Example: Working triceps and biceps. (ie Do 1 set of tricep kickbacks immediately followed by bicep curls.)

Staggered Super set - basically means doing an additional (and potentially unrelated) exercise in between sets

EXAMPLE: Working triceps and cardio (ie triceps kickbacks for strength followed by 1 min sets of skipping with no rest in between)

## ADVANTAGES

Supersets save time by reducing the rest interval between two exercises.

Great for building muscularity as they really challenge your muscles and body

Keep your heart rate up and increase intensity by shortening rest time (ie. Burn more calories)

Prevent weight loss plateaus

<http://www.bodybuilding.com/teen/locke27.htm>



## Other types of sets

### GIANT SETS

- Performed in rotation with as little rest as possible between them, consists of four or more exercises to be done with as much intensity as one can muster
- Can do cardio or strength

### DROPSETS

- This a "descending set" of the same exercise.
- Start heavy and keep going lighter until you can not do any more
- Ex- Start bicep curls at 20lbs till you can't do anymore, then do 15lbs, then 10lbs, then 5lbs...until you can't do anymore!



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## What is tempo training?

It is the pace in which a rep is completed. Example:  
If doing a squat, you can do:

### Fast:

- Lower for a count of 1
- Hold for 0
- Up for a count of 1
- Repeat with no break
- Tempo would be 1,0,1,0

### Slow:

- Lower for a count of 4
- Hold for 3
- Up for a count of 4
- Stop at the top for 2 before repeating
- Tempo would be 4,3,4,2



## The system "123 or 1234"

**The First Number:** The first number is for the negative or eccentric phase - in other words, when you are lowering the weight or when you are moving in a direction opposite to the muscle contraction. For a squat and a bench press, this would mean lowering the weight. For a cable row, this would mean returning the plates to the stack.

**The Second Number:** The second number is the pause after the first phase is complete - for example, in the bench press, a pause as the weight is held stationary just above the chest.

**The Third Number:** The third number refers to the concentric or positive phase - the contraction. For a bench press, this would be driving the bar upwards. A number of 1 here typically means, "explode" - in other words, you may do it faster than 1 second.

**The fourth Number:** The fourth number is usually left out, but if present, refers to the pause at the top of the movement.

Source: [www.bodybuilding.com](http://www.bodybuilding.com)

## CHICK TIP

*An awesome resource for finding exercises to perform in supersets and building programs is BodyBuilding.com "Exercise Guides" at*

*<http://www.bodybuilding.com/exercises/>*

*It allows you to filter by body part, compound and isolation exercises, equipment and more to help you build chicktastic super programs for your clients!*



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## What is the rate of perceived exertion?

- The RPE scale is used to measure the intensity of your exercise.
- The RPE scale runs from 0 – 10.
- Uses no equipment, calculations or heart rate monitors – it is YOUR perception











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### FIT CHICKS "Rate of Perceived Exertion" CHART

PRE Perceived Rate of Exertion SCALE 1-10	% Max Heart Rate	How I'm Feeling		Description
1-4	< 50%		Aerobic, Endurance, Recovery	Barely working. Could do this all day!
5-6	55%			Just warming up or cooling down. Feeling a little tony! You're breathing a little faster.
6.5-7	65%-70%		Aerobic	Breaking a sweat and breathing is getting faster (like a fast walk)
7.5	75%			Feels like work but you can sustain it
8	80%			Working hard! You can talk but its getting tougher
8.5	85%			Sweating and working VERY hard but you can still push a little more
9	90%			<b>Really pushing chicks! Can only stay here 30 secs - 1 min (you can do it).</b>
9.5	95%		Anaerobic	Something is very fast. Only stay here about 20 secs
10	100%			Max effort! This is your limit.

#### Working at your 9 out of 10.

To get the benefits **WIT**, you NEED to push yourself past the upper end of your aerobic zone and allow your body to replenish your anaerobic energy system during the recovery intervals. **AT FIT CHICKS**, we call this "Working at your 9 out of 10" to ensure our chicks are getting the max results from their high intensity interval bootcamp classes.

#### How to measure your 9 out of 10?

Working to your "9 out of 10" is part of the "RATE OF PERCEIVED EXERTION" or RPE. This 1-10 scale is an easy, meaningful way for any chick to measure her exercise intensity without having to use any equipment (a heart rate monitor).



## What is high intensity interval training?

- **Also known as HIIT**
- Combines short intervals of maximum intensity exercise (ie. 20 sec - 2 min) separated by longer intervals of moderately intense exercise
- **Example: Tabatas**



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## What is low intensity steady state?

- **Also known as LISS**
- It is a steady cardiovascular form of exercise where you keep your intensity low but your effort consistent (ie – 30 to 60min)
- **Example: Walking on an incline on the treadmill**



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## What's the controversy between HIIT &



So many opposing views but both have an important place in fitness!

## More lingo used in HIIT

### AMRAP

- Stands for "As many rounds as possible"
- Ex: Pick 3 exercises such as 10 box jumps, 10 push ups & 10 burpees. How many rounds can you do before you GAS OUT!

### METABOLIC FINISHERS

- An intense exercise or series of exercises performed at the end of the workout designed to ensure that you've burnt every last drop of gas from the tank
- Time varies

### PR

- Stands for personal record
- Great to get peeps to push themselves!



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**When it comes to building personal training programs, you may also hear this fitness lingo:**

**GOING TO FAILURE**

- When training to failure, an exercise is repeated until exhaustion, (ie. you can not do 1 more!). It's a tool for building muscular strength, size, and endurance.

**SPLIT**

- **Involves** dividing up the muscle groups into different training days (i.e. "Monday is *leg day* in my 5-day split").

**PROGRESSION**

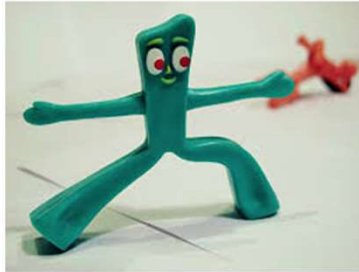
- Can include anything from increasing weight resistance, repetitions, or number of sets in a workout to decreasing rest time for cardiovascular training. (Need to change it up!)



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# Types of Stretches



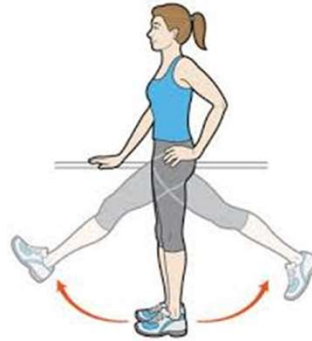
## What is dynamic stretching?



- Also known as "moving stretches".
- Typically performed in a warm up to warm up the muscles and stretch them to prepare for the exercise ahead
- Reduce injuries.
- Great to improve functional range of motion

### Examples include:

- Arm circles
- Light jog
- Side to side lunges
- Hip circles



### Dynamic Stretching

Dynamic stretching is also known as "moving stretches". These stretches are typically performed in a warm up to warm up the muscles and stretch them to prepare for the exercise ahead and reduce injuries.

Examples include:

Arm circles

Light jog

Side to side lunges

Hip circles

Dynamic stretches are also great in addition to doing in a warm up to help improve functional range of motion, mobility in sports and in performing everyday activities.

Dynamic stretching is similar to active stretching. However, in dynamic stretching you don't hold the stretch. You are always moving or dynamic

Note that dynamic stretching should not be confused with old-fashioned ballistic stretching (remember the bouncing toe touches from PE classes?). Dynamic

stretching is controlled, smooth, and deliberate, whereas ballistic stretching is uncontrolled, erratic, and jerky. Although there are unique benefits to ballistic stretches, they should be done only under the supervision of a professional because, for most people, the risks of ballistic stretching far outweigh the benefits.

**<http://www.humankinetics.com/excerpts/excerpts/types-of-stretches>**



## What is static stretching?



- Means to “hold a stretch”.
- Done at the end of workout to help improve flexibility and aid in recovery.
- Can be held in a challenging but comfortable position for a period of time, usually somewhere between 10 to 90 seconds.



### Examples include:

- Splits
- Quad stretch (kick heel to bum and hold with hand)
- Laying on back and holding knees to chest

### Static Stretching

Static stretching means to “hold a stretch”. These stretches are done at the end of workout to help improve flexibility and aid in recovery.

Static stretching can be held in a challenging but comfortable position for a period of time, usually somewhere between 10 to 90 seconds.

Examples include:

Splits

Quad stretch (kick heel to bum and hold with hand)

Laying on back and holding knees to chest

## What is passive stretching?



- means to use some outside assistance to help you achieve a stretch.
- could be your body weight, a strap (like the tie on your bathrobe), leverage, gravity, another person, or a stretching device.
- You relax the muscle you're trying to stretch and rely on the external force to hold you in place.



### **IMPORTANT: Be Careful!**

There is always the risk that the external force will be stronger than you are flexible, which could cause injury.

### **Passive Stretching**

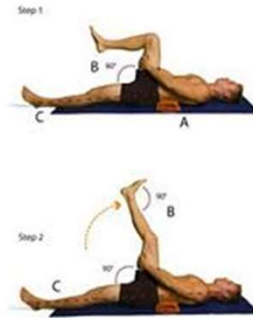
Passive stretching means to use some outside assistance to help you achieve a stretch. This could be your body weight, a strap (like the tie on your bathrobe), leverage, gravity, another person, or a stretching device.

With passive stretching, you relax the muscle you're trying to stretch and rely on the external force to hold you in place. You don't usually have to work very hard to do a passive stretch, but there is always the risk that the external force will be stronger than you are flexible, which could cause injury.

## What is active stretching?



- Means you're stretching a muscle by actively contracting the muscle in opposition to the one you're stretching.
- You do not use your body weight, a strap, leverage, gravity, another person, or a stretching device
- Different than dynamic as you are not moving.



### **Active Stretching**

*Active stretching means you're stretching a muscle by actively contracting the muscle in opposition to the one you're stretching. You do not use your body weight, a strap, leverage, gravity, another person, or a stretching device*

*Active stretching* involves stretching the muscle actively. In other words, you are holding the stretched position with the opposing muscle group. Your muscles are playing an active role in holding the stretch position.

example, the hamstrings are stretched by using your quadriceps (opposing muscle). You cannot hold this position for more than 5-10 seconds. She is only using her hands for support and is not holding the leg up with her hands.

*You do not use your body weight, a strap, leverage, gravity, another person, or a stretching device.*

## Foam rolling



- Form of self myofascial stretching.
- Can be done using a foam roller, tennis ball or even your hands.
- Can be done as a dynamic warm up to warm up the muscles or as a cool down.



### FOAM ROLLING STRETCHES

Foam rolling is a form of self myofascial stretching. It can be done using a foam roller, tennis ball or even your hands.

Foam rolling can be done as a dynamic warm up to warm up the muscles or as a cool down. As part of the warm-up, it should be the first thing done, before any stretching or cardio. Here, it serves to get the blood flowing to the areas that maybe aren't receiving as much blood flow and helps to reduce tension in muscles. As part of a cool down, the rolling helps to flush out blood that has pooled in the working muscles and allows fresh nutrients and oxygen to come in and begin the healing process.

**CHICK TIP:** For examples of foam rolling, please visit

<http://www.oxygenmag.com/article/8-foam-roller-exercises-8595>

## PNF stretches



- *Proprioceptive Neuromuscular Facilitation* (PNF)
- Usually, PNF is performed with the help of a partner.
- Different ways to do PNF: Contract relax, contract- hold relax, etc



### **PNF STRETCHING**

Proprioceptive Neuromuscular Facilitation (PNF) is said to use receptors to improve the neuromuscular (related to nerves & muscles) response of the body. The flexibility gained can be maintained by doing PNF stretches a minimum of one repetition at least 2 times a week. There are different ways to do PNF: Contract relax, Contract-Hold relax and so on. Usually, PNF is performed with the help of a partner. But you can do it on your own with a towel for resistance.

To perform a hamstring PNF stretch, stretch till you feel a slight discomfort, contract the hamstring isometrically (without moving) for 3-5 sec, relax the muscle and slowly deepen the stretch using your quadriceps (opposing muscle). Repeat the cycle 3-4 times. Try it, it just sounds complicated.

## Fitness Session #1 recap

### FACTORS THAT AFFECT FITNESS

- Affect the direction of fitness, the market, and challenges you may face

### BEING A HEART CENTERED FITNESS PROFESSIONAL

- The Golden Circle

### CREATE YOUR OWN FITNESS PHILOSOPHY

- Let's do a FUN SHEET!

### CODE OF ETHICS FOR FITNESS PROFESSIONALS

- Understand what being a fitness professional encompasses from an ethical standpoint

### THE COMPONENTS OF FITNESS

- Learn the primary and secondary components of fitness

### FITNESS LINGO

- Learn what the heck all these words mean!



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**What's coming up  
in the next class?**





**Any questions or inquiries,  
please email:**

**[fne@fitchicks.ca](mailto:fne@fitchicks.ca)**

**Let's have an amazing  
journey ahead!**





**Want to watch this class  
again?**

The link will be posted within  
48 hours for you to access.