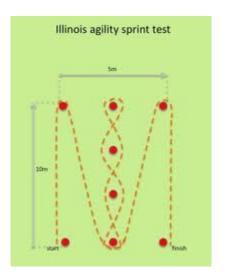
11 Components of Physical Fitness Definitions and Examples:

1. Agility – The ability to stop, start, and change directions quickly. Agility is a skill-related component of physical fitness. One's agility can be increased by doing specific footwork drills on an agility ladder, staggered tire formation, or any other type of obstacle course that requires the individual to adjust body position, speed, and direction quickly. Pictured below is a good example of an agility sprint test. Agility can be tested by timing individuals running through a series of staggered cones or obstacles for a predetermined distance. Examples of agility: A football player cutting across the field, a gymnast doing a floor routine, a hockey player bringing the puck down the ice maneuvering around defenders, or a soccer player dribbling the ball around defenders. View the video at bottom of page to see examples of agility in action.



The Illinois Agility Sprint Test is a great way to measure and improve one's agility and speed.



This football player is showing great agility running around defenders.

2. <u>Balance</u> – Controlling body positions while standing still or moving. Balance is a skill-related component of physical fitness. Balance can be tested by standing on one leg with eyes closed for 30 seconds on each leg or by performing the Y-Balance Test. Balance can be improved by increasing one's overall <u>core strength</u>. Specific training techniques using exercise equipment such as balance discs, Fit-Balls, BOSU, or standing on one leg while performing an exercise can help to improve one's balance. *Examples of balance:* A gymnast jumping and landing on a balance beam, a surfer on a surfboard riding a wave, a one leg deadlift pictured above, equestrian events, or simply jumping around on one foot.



This gymnast on the balance beam is an excellent example of balance, power, strength, coordination, agility, and flexibility.



The Y-Balance Test is a common test for balance.

3. Body Composition – The ratio of muscle to fat in the body. Having a high percentage of body fat compared to lean muscle has shown to increase risk ofheart disease, certain cancers, strokes, and diabetes. Doing daily cardiovascular exercise and strength training, along with a healthy diet, will help to reduce body fat and increase lean muscle mass. Body Composition can be measured by skinfold calipers, waist-to-hip ratios, circumference measurements, bioelectric impedence, and hydrostatic weighing. Hydrostatic weighing is the best way to determine one's body fat percentage, followed by skinfold calipers, and bioelectric impedence. Body composition is a health-related component of physical fitness. In addition to body composition, individuals should know

their body mass index (BMI) as well. Click <u>here</u> for further information about body mass index and to determine your BMI.



Hydrostatic weighing is the best way to determine one's body fat percentage. Although it is the best, it is expensive and can only be done in a clinical setting.



Using a skinfold caliper is a good, inexpensive, and fairly accurate way to measure one's body composition.

4. Cardiovascular Endurance – Engaging in physical activity for long periods of time. Cardiovascular endurance can be measured indoors by performing a 3 minute step test or by stress tests on a treadmill or stationary bike. Cardiovascular endurance can also be measured by field tests such as Cooper's 12-minute Run, the 1.5 Mile Run, the 600 Yard Walk/Run, or a Shuttle Run. However, some disadvantages to outdoor field tests include wind, humidity, and temperature. Cardiovascular endurance is a health-related component of physical fitness. Please click here for health benefits of cardiovascular endurance training. In order to improve cardiovascular endurance, one must be consistent with daily aerobic exercise while reaching appropriate target heart rate zones. Please click here for more information regarding cardiovascular endurance and examples of cardiovascular/aerobic exercises. Examples of cardiovascular

endurance: A cross-country running race, running a marathon, jumping rope, high-intensity circuit training, or manipulating your way through an obstacle course.



Running a marathon is a great example of cardiovascular endurance.

5. **Coordination** – Making movements work together smoothly. This usually consists of upper and lower body movements being performed at the same time. Coordination is a skill-related component of physical fitness. Coordination can be improved by performing exercises that require the individual to use upper body muscle groups and lower body muscle groups at the same time. Coordination can be tested with a variety of manual dexterity tests and hand/eye coordination tests. One example of such test is balancing on one leg and throwing a tennis ball against a wall and catching the returning ball in the opposite hand. Please view our gallery to see examples of exercises you can do to improve your coordination. **Examples of coordination:** Performing a squat on a <u>BOSU</u> while doing a shoulder press, a baseball pitcher throwing a pitch, a pole vaulter or a high hurdler in track and field, or <u>jumping rope</u>. View the video at bottom of this page to see examples of coordination in action.



A baseball pitcher throwing a pitch is a great example of coordination, power, balance, and speed.

6. Flexibility – Moving specific joints or a group of joints through a wide range of motion (ROM). Flexibility is a health-related component of physical fitness that plays a very important role in the functioning of all individuals especially athletes. Examples of flexibility include: a gymnast doing a leg split, a hockey goalie reaching with arms and/or legs to save a goal, someone doing yoga, or bending over to touch your toes. The most common tests for flexibility include the Sit-and-Reach Test and the Shoulder Joint Reach Flexibility Test. There are three techniques that can be used to increase one's flexibility: ballistic stretching, static stretching, and proprioceptive neuromuscular facilitation.

Ballistic stretching is a short-duration, high-force stretch that uses bouncing movements to stretch muscles. Ballistic stretching is a high-risk injury type of stretching and is not recommended to the general public. Bring It Home Personal Training does not teach this stretching technique.

Static stretching is the most common type of stretching that uses slow and steady movements that takes a muscle to a point of slight tension and then force is slowly applied to produce a greater stretch.

Propric

oceptive Neuromuscular Facilitation (PNF) stretching is more advanced and requires force applied against the stretching muscle while incorporating an isometric contraction on either the muscle being stretched or its opposite. This advanced type of stretching should be done with a professional fitness trainer or physical therapist.



This hockey goalie is showing excellent flexibility when saving a goal.



The most common test for flexibility is the Sit and Reach Test

7. <u>Muscular Endurance</u> – Using muscles repetitively without fatiguing for an extended period of time. Muscular Endurance can be measured by a 60 second push-up test or 60 second half sit-up or crunch test. Muscular endurance is a health-related component of physical fitness. Please click <u>here</u> for more information about muscular endurance. Examples of muscular endurance: Long-distance cycling, using a rowing machine or crewing, or doing push-ups until fatigue has been reached.



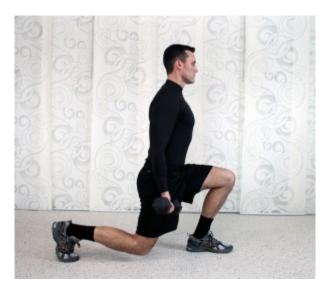
A long-distance cycling race is a good example of muscular endurance.

8. Muscular Strength – Producing force using muscles. Muscular strength has also been defined as the maximum pull or push that can be exerted one time by a muscle group. Muscular Strength is a health-related component of physical fitness. Muscular Strength can be measured by performing a 1 repetition maximum (RM) test or a 10 RM test on a chest press in order to test upper body strength. Other ways of testing strength can be done by using a dynamometer, cable ensiometer, load cells or strain gauges, or various strength exercises, such as how many pull-ups, push-ups, or biceps curls an individual can do. Examples of muscular strength exercises: Performing a bench press, squats, pull-ups, biceps curls, or lunge pictured below. Examples of muscular strength in sports: An NFL lineman blocking defenders from the quarterback, kicking a soccer ball as hard as possible, or in Track and Field the Shot-Put Event. Please see our gallery for more images and examples of how to increase muscular strength. Please click

<u>HERE</u> For more details and very important information regarding muscular strength.



The Shot-put in Track and Field is a good example of strength, power, and coordination.



The walking lunge is a great way to improve muscular strength, balance, and coordination.

9. **Power** – The ability to use muscle strength quickly. Power is a skill-related component of physical fitness. **How can power be improved or increased?** Power can be increased by three general ways: increase the force-producing capabilities of muscles; decrease the time it takes to move across a distance due to faster speed; and increase the distance a force acts on one's body. Total body strength training, increased flexibility through stretching, sport specific training and improved technique, sharp mental focus,

and increased reaction time are many ways to improve overall power. Power can be tested by performing a vertical jump test or standing long jump. *Examples of power:Plyometric training (such as jump squats or box jumps), jumping exercises, or in track and field- the running long jump or high jump. View the video at the bottom of this page to see examples of power in action.*



The Long-Jump in Track and Field is a great example of power, speed, and coordination.



This Vertical Jump Test is a good way to test one's power.

10. **Reaction Time** – How quickly an individual responds to a stimulus. Reaction time is a skill-related component of physical fitness. Reaction time can be tested in a variety of ways. A simple test is a Reaction Time Ruler Test or a Reaction Time Tester found at TopEndSports.com. Click <a href="https://examples.of.oreaction.oreactio



A soccer goalie saving a goal is an excellent example of reaction time.



Another good example of reaction time is sprinters reacting to the start gun to begin a race.



A Ruler Reaction Test is a simple and fun way to test one's reaction time.

11. <u>Speed</u> – Performing a movement or covering a distance in a short period of time. Speed is a skill-related component of physical fitness. Speed can be measured by timing a 40-yard dash, 30 meter sprint, or the Illinois Agility Test. Individuals can increase speed by sprinting down hill or wearing a small parachute or weighted vest on your back while

sprinting. **Examples of speed:**the Summer Olympics 100 meter sprint, swimming 50 meters as fast as possible, or speed skating. **View the video at the bottom of this page to see examples of speed in action.**



Sprinting with a small parachute on is a great way to increase one's speed.

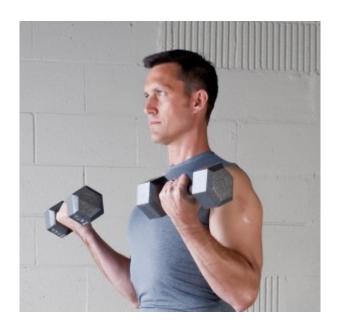
The 5 components of physical fitness that are directly health-related and the 6 components of physical fitness that are skill-related (or sports-related) should be incorporated into your daily exercise routines. Combining all 11 components of fitness into your exercise program will certainly make you stronger, faster, improve your balance and increase your flexibilty. Improving upon all the components of physical fitness will help you to perform daily routine tasks without fatique and exhaustion.

Images and Video of Exercises that Improve the 11 Components of Physical Fitness

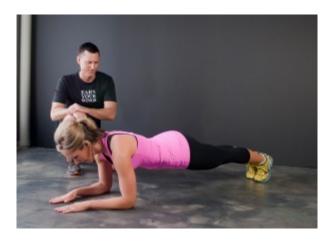
Please visit our new and improved <u>Gallery</u> for more exercises that demonstrate the components of physical fitness in action. Be sure to click on images for name of exercise and components of physical fitness being improved.



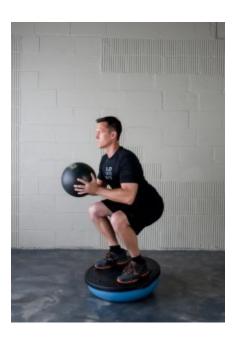
Push-ups increase upper body strengh and endurance



Biceps curls increase muscular strength and endurance



This basic plank strengthens the overall core muscles



Squat on BOSU with medicine ball improves balance and coordination while increasing lower body strength and core strength



Straight arm plank improves balance and increases upper body and core strength and endurance



Bridge and leg raise improves core, glutes, and hamstring strength



Biceps curls balancing on one leg on BOSU improves balance, coordination, muscular strength and endurance

COMPONENTS OF PHYSICAL FITNESS

Health Related components: Those factors that are related to how well the systems of your body work

- 1. **Cardiovascular Fitness**: The ability of the circulatory system (heart and blood vessels) to supply oxygen to working muscles during exercise.
- 2. **Body Composition**: The relative percentage of body fat compared to lean body mass (muscle, bone, water,etc)
- 3. **Flexibility**: The range of movement possible at various joints.
- 4. **Muscular strength**: The amount of force that can be produced by a single contraction of a muscle
- 5. **Muscular endurance**: The ability of a muscle group to continue muscle movement over a length of time.

Skill Related Components: Those aspects of fitness which form the basis for successful sportor activity participation.

- 1. **Speed**: The ability to move quickly from one point to another in a straight line
- 2. **Agility**: The ability of the body to change direction quickly
- 3. Balance: The ability to maintain an upright posture while still or moving
- 4. **Coordination**: Integration with hand and/or foot movements with the input of the senses.
- 5. **Reaction Time**: Amount of time it takes to get moving.
- 6. **Power**: The ability to do strength work at an explosive pace.

The 5 Components of Physical Fitness

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Physical Characterization

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Every data with interpretation

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pointfitness.weebly.com/ptraining

We all have an idea of what "fit" should look like. For some people, it means having a sleek Hollywood body, while others want to have massive muscles or a perfect hourglass figure.

But fitness isn't defined by appearance! There are five components of physical fitnessyou need to consider:

1. Muscular Strength

This is the "power" that helps you to lift and carry heavy objects. Without muscular strength, your body would be weak and unable to keep up with the demands placed upon it.

The way to increase strength is to train with heavy weights, working in the 4 - 6 or 12 - 15 rep ranges. The heavier the weight, the fewer reps you should perform!

2. Muscular Endurance

Endurance is the ability of your muscles to perform contractions for extended periods of time. Rather than just lifting or carrying something for a few seconds, the muscles are used for minutes.

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.

3. Cardiovascular Endurance

Cardiovascular endurance is your body's ability to keep up with exercise like running, jogging, swimming, cycling, and anything that forces your cardiovascular system (lungs, heart, blood vessels) to work for extended periods of time. Together, the heart and lungs fuel your body with the oxygen needed by your muscles, ensuring that they have the oxygen needed for the work they are doing.

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.

4. Flexibility

Flexibility is one of the most important, yet often overlooked, components of physical fitness. 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.

To test your flexibility, lean forward and try to touch your toes. Those with good flexibility will usually be able to touch their toes, while those with limited flexibility will not. The sit and reach test (sitting on the floor and reaching toward your toes) is another good way to assess your flexibility. The more flexible you are, the closer you will come to touching your toes and beyond.

5. Body Fat Composition

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!