



**Special Olympics** Fitness Assessment

# Testing Manual for Programs



Special Olympics  
**Health**  
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**Golisano**

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# Introduction

## Special Olympics Fitness Assessment **Testing Manual for Programs**



## Special Olympics **Fitness**

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Fitness is the state of optimal health and performance through adequate physical activity, nutrition, and hydration. For our athletes to be fit, they must practice healthy habits year-round and across the lifespan. Special Olympics fitness programming and resources empower athletes and their supporters to take charge of their own health and fitness by providing education, social support, opportunities and tools to track progress.

Physical fitness is a key part of the Special Olympics mission. Good health and physical fitness are essential to sports participation and for overall quality of life. Special Olympics has been working to integrate health and fitness into sports programming as we recognize that individuals with intellectual disabilities are in comparatively poorer health than the general population. As an example, Special Olympics Healthy Athletes data support that our adult athletes are twice as likely to be obese than adults without an intellectual disability. Because of disparities such as this, Special Olympics is directing its attention on health and fitness programming, with the aim of reducing the prevalence of non-communicable diseases in this population.

Fitness creates a renewed focus on athlete performance and inclusion by linking sport and health, providing fitness opportunities and resources, setting higher expectations, enhancing coach education, and activating athlete leaders and fitness expert.

## **Importance** of Fitness Assessment

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Special Olympics athletes and Unified Sports teammates strive toward their personal best in sport and in life. Fitness testing is a way to show athletes that they are making measurable progress in a way that impacts both sport performance and overall health. By conducting simple field tests that measure relevant components of fitness to each sport, Programs can monitor improvements throughout the sport season or fitness programming.

The fitness components of endurance, strength, flexibility and balance transcend into all sports. Athletes who have higher levels of fitness may outperform their peers by running faster, throwing farther, and jumping higher. Fitter athletes are also at lower risk of illness and injury which could limit their participation in practices, competitions or entire sports seasons. Healthy lifestyle choices in nutrition and hydration also optimize a player's performance. Special Olympics is committed to providing sports opportunities for people with intellectual disabilities that span from early youth to late adulthood. Fitness can help our athletes to reach their personal best each season and continue their journey in Special Olympics sports for their entire lives.

## Test Selection

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There are many types of fitness tests to choose from and it is important to make informed decisions about which tests to use to monitor participants. When selecting tests, consider the following:

- What tests will best measure the components of fitness most relevant to an athlete's sport performance and/or fitness goals?
- Which tests are most easily incorporated into practice time and require little equipment and/or space?
- Which tests are you most comfortable administering and scoring?

It is not necessary to measure every component of fitness or to dedicate too much time to assessing athletes. In general, you should limit your tests to five or less in order to keep testing sessions manageable. It is recommended to conduct fitness testing at least twice, before and after a sport season or a fitness training program, in order to identify changes in fitness level. However, depending on the length of the season or program, you may want to consider testing at the mid-point as well. Focus on the key components of fitness that are applicable to the program and the participants, and select tests that are suitable.

## Types of Fitness Tests

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There are several components of fitness that contribute to sport performance and can be the focus of training programs. Some of the components of fitness include:

- **Muscular Strength:** Strength tests measure the ability to do work. They measure the maximal amount of force a muscle group can exert at one time. Improved strength might mean an athlete is able to jump higher, throw farther, and sprint faster. Strength also helps to prevent injuries, which is important to all athletes.
- **Balance:** Balance tests measure the ability to stay upright or maintain control of posture during sports movements. Improved balance means less missteps or falls during complicated skills or tasks, which improves success rates of challenging plays and reduces risk for injuries.
- **Endurance:** Endurance tests measure the ability to keep moving for long periods of time. Improved endurance might mean an athlete is able to practice with fewer breaks, outrun opponents, and go farther distances. Most athletes can benefit from improved endurance as it also contributes to having energy throughout practice and making less mistakes when fatigued.
- **Flexibility:** Flexibility tests measure the ability to move easily through a range of motion. Improved flexibility means it is easier to do sports skills with the correct form. Flexibility also helps prevent injuries.
- **Power:** Power tests measure the ability to move with force. Improved power means more explosive running starts, throws, and jumps.
- **Agility:** Agility tests measure the ability to quickly change directions while moving. Improved agility makes it easier to respond to moving targets like other players and balls
- **Speed:** Speed tests measure the ability to accelerate or move quickly towards one direction. Improved speed benefits athletes in races as well as athletes who need to break free from opponents as in many team sports.

## Preparing for Fitness Testing

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Prepare yourself and others to assist you before conducting a fitness testing session. The better prepared you are, the more smoothly the testing will go and the more accurate the scores will be. Carefully plan and organize the session in advance so that you can effectively educate, engage, and motivate participants to give their best effort during testing. The following steps will help you to prepare:

- Gather the equipment that you need in advance. Almost all tests require some equipment so prepare a list and be sure that everything you need is in good working order. Have a pencil and paper or an electronic device to record the test scores.
- Learn and practice the testing protocols. All the tests you select will have very specific and standard procedures that should be followed. The tests in this manual are simple field tests, but it is important that you know how to conduct the steps of the test precisely. Practice the tests in advance so you can clearly deliver the testing instructions and effectively demonstrate the proper test protocol.
- Plan the order and timing of the tests in advance. It is best to do the more challenging tests first, the ones that cause more fatigue, and then do the tests that are not as intense. Plan out approximately how long each test will take and how many participants you intend to test at once; for some tests you can have more than one person perform at a time (like the 6 minute walk test for example). Also build in rest time between tests so that participants are not tired and can perform optimally. While you are planning your test order, you should also consider how many assistants you need to help you so that each test is properly supervised.
- Consider the nature of your participants when planning the testing session. Some participants will be motivated to be tested in a group and won't mind others observing them perform. However, some participants might find it difficult to be tested in a group and would prefer to have an individual session. Be sensitive to the individual differences because participant performance on testing is influenced by so many things such as: the environment, the test complexity, mood, self-esteem, and motivation.

## Preparing Participants

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Proper preparation for fitness testing is important in order to get valid and reliable scores. For some people with ID, fitness testing can be uncomfortable and stressful. Taking the time to familiarize them with the testing procedures, equipment, and environment will help to ease any concerns and help them to perform their best. Slowly and carefully review the testing protocol with participants and walk them through each test. Help them to understand which fitness component the test measures and always demonstrate the test and give sufficient time to practice before you collect data. In order for a participant to perform optimally, they must understand what is being asked of them.

- Motivation is an important part of fitness testing. A participant must give their best effort in order for you to get an accurate measure of their fitness level. Some people with ID may find it challenging to give what we call a "max effort." This may be because it feels hard, or because they don't know what "max" actually feels like. Familiarization and practice will help with this, but also offering verbal encouragement can help to motivate participants to do their best.
- In preparation for testing, participants should be rested and not have exercised vigorously within 2 hours prior to the test. They also should be adequately hydrated and fed, and well warmed-up.
- Instruct participants to dress in comfortable clothing and to wear running shoes for fitness testing.

## Conducting Fitness Assessment

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There are several important considerations of fitness testing that will help to ensure the scores you obtain from participants are accurate. In addition to the steps already mentioned, keep in mind the following when conducting assessments:

- Safety is always the top priority when testing fitness.
- Always follow the test procedures carefully. The tests that are included in this manual were selected because they are widely-used field measures that are known to be feasible for testing people with ID. It is important to standardize the procedures and be consistent when testing different participants at various time points.
- Carefully measure and record the scores. It can be very easy to make mistakes when setting up a testing course, using equipment, counting or reading a measuring tape, or writing down numbers and units. Accuracy of scoring is vital and taking the time to carefully document participant scores will allow you to monitor their progress correctly.



# Fitness Testing Protocols

Special Olympics Fitness Assessment  
**Testing Manual for Programs**



## Endurance: 6-Minute Walk

### Objective:

To walk as quickly as possible for 6 minutes and to cover the maximum distance in that time.

### Purpose:

The 6-Minute Walk Test (6MWT) is a sub-maximal test of aerobic capacity or endurance.



### How to record the score

Calculate the total distance walked by multiplying the number of laps by the length of the course (e.g., 30 meters) plus the extra distance for partially completed laps. Record the distance to the nearest meter.

### How to prepare for the test

#### Equipment/Space Required:

- Timer or stopwatch
- At least 2 cones
- Measuring tape or measuring wheel
- Lap counter (optional)
- Pencil/Pen
- Score Sheet

The 6MWT is performed on a course that is a carefully measured and clearly marked out. The test can be conducted indoors or outdoors; around a track, along a long corridor, or around a gym or field, but the ground surface should be level and the distance of each lap must be measured to ensure accurate scoring. We recommend administering the 6MWT on the standard 30-meter flat, straight walking course because it uses less space and is easy to measure and mark out. A 15-meter course can also be used if the area is small. Mark the starting point with a cone, floor tape, or chalk, and then measure out 30 meters from there and mark the second turn around point with another cone or tape. The two cones have created a 60-meter walking loop.

### How to administer the test

1. Inform the participant that the 6MWT measures endurance and that the goal of the test is to walk as many laps as possible in 6 minutes.
2. Explain the testing procedures while you demonstrate how to walk the course. Stay close to the cones and make a tight turn without slowing down when demonstrating. The participant practices by walking 1-2 laps. Offer instructional feedback as needed, particularly on the turns.
3. The participant is positioned at the starting point next to the cone or on the line.
4. Instruct the participant to walk back and forth in between the two cones at their own pace. The participant should walk quickly but not jog or run during the test. Inform the participant that they can slow down or stop to rest during the test, but to start walking again as soon as they can.
5. Instruct the participant to stay close to the cones when turning and not to slow down on the turns.
6. Cue the participant to begin by saying “ready, set, go” and start the timer. Keep track of time and record each lap when the participant returns to the starting point.
7. Provide verbal encouragement to motivate the participant to walk quickly and cover as much ground as possible. Inform the participant how far along they are in the test at regular intervals, like every 2 minutes.
8. With 30 seconds remaining in the test, inform the participant that you will soon tell them to stop and to stay in that spot when the test ends.
9. At the signal to “Stop”, mark the spot where the participant ends with a piece of colored tape or place a pencil at the participant’s front foot. This is an important step because many participants will end the test at a point that is part way between the cones and is not a full lap, but the extra distance must be measured.
10. Use a measuring tape, measure the extra distance walked for a lap that was not fully completed.

## Variation #1: 6-Minute Run

### Objective:

To jog or run as quickly as possible for 6 minutes and to cover the maximum distance in that time.

### Purpose:

The 6-Minute Run Test measures aerobic endurance and is an alternative to the 6MWT used for participants who have higher levels of fitness.

### How to prepare for the test

The preparation and protocol for the 6-Minute Run Test is identical to the 6MWT, only the participant is instructed to jog or run for the duration of the test.

### How to record the score

Calculate the total distance ran by multiplying the number of laps by the length of the course plus the extra distance for partially completed laps. Record the distance to the nearest meter.

## Variation #2: 6-Minute Push

### Objective:

To push as quickly as possible for 6 minutes and to cover the maximum distance in that time.

### Purpose:

The 6-Minute Wheel or Push Test measures aerobic endurance and is an alternative to the 6MWT used for testing individuals who use wheelchairs for mobility.

### How to prepare for the test

The preparation and protocol for the 6-Minute Push Test is identical to the 6MWT only the participant is instructed to push their wheelchair for the duration of the test.

### How to record the score

Calculate the total distance pushed by multiplying the number of laps by the length of the course plus the extra distance for partially completed laps. Record the total distance to the nearest meter.



## Speed: 10-Meter Agility Shuttle Run

### Objective:

To run as fast as possible and to quickly change direction between two lines that are 10 meters apart.

### Purpose:

The 10-Meter Agility Shuttle Run measures speed of movement, agility (the ability to change direction), and body control.



### How to prepare for the test

#### Equipment/Space Required:

- Timer or stopwatch
- 2 cones or marking tape
- Measuring tape
- Two identical items that a participant can easily pick up/carry with one hand.

For example:

Small wooden blocks  
Beanbags  
Small balls

- Pencil/Pen
- Score Sheet

The 10-Meter Agility Shuttle Run is carried out on a flat, non-slip ground surface. To set up, mark the starting line with a cone, floor tape, or chalk, or use a preexisting line, then measure out 10 meters from there and mark the second line. Place the two items, the blocks, beanbags, or balls on the starting line.

### How to administer the test

1. Inform the participant that the 10-Meter Agility Shuttle Run measures their ability to run and change directions quickly and that the goal of the test is to complete the task as quickly as possible.
2. Explain the testing procedures while you demonstrate how to properly run the course. The participant practices by walking the course and picking up and placing down the blocks. Offer corrective feedback so that the participant understands and is clear on the correct pattern to run the course.
3. Instruct the participant to place their front foot just behind the marked start line.
4. On the signal "ready, set, go", the participant picks up one block with one hand, runs to the opposite/far line, places the block on the line, and sprints back to the start line. The block must not be thrown at, or over, the line. The participant then picks up the second block, sprints to the opposite line, places it on the line and runs back to the start line.
5. The timer starts when the tester says "go" and stops when the participant crosses the line after moving both objects.
6. Instruct the participant to run the course as fast as they can, make quick turns, and keep their speed up through the finish (they should run past the line).
7. The participant performs two attempts of the 10-meter shuttle run with about 3 minutes rest in between.

### How to record the score

Record the total time to complete the shuttle run in seconds to the nearest decimal place. The best of the two attempts is recorded.

## Power: Standing Long Jump

### Objective:

To jump the farthest distance possible from a stationary starting position and landing on two feet.

### Purpose:

The Standing Long Jump test measures explosive power of the lower body (legs).



### How to prepare for the test

#### Equipment/Space Required:

- Tape measure
- Colored floor tape, chalk or preexisting line on the ground
- Pencil/Pen
- Score Sheet

The ground surface is level, hard, and non-slip. Mark a start line on the floor or flat outdoor ground surface with colored tape or chalk. From the start line, place and extend the tape measure to 3.65 meters or 12 feet. The start line is the zero mark for the tape measure. Secure the tape measure in place at every foot, if possible.

### How to administer the test

1. Inform the participant that the Standing Long Jump Test measures leg power and that the goal of the test is to jump as far as possible on two feet.
2. Explain the testing procedures while you demonstrate the proper technique for the jump. The participant practices 2-3 long jumps. Offer feedback on the practice trial so that the participant understands the protocol and is clear on the proper technique.
3. The participant stands with toes just behind the marked start line with feet hip width apart. Instruct the participant to bend their knees and swing their arms to drive the body forward and jump as far as possible landing solidly on both feet, without falling backwards.
4. The tester is positioned to the side of the participant next to the measuring tape.
5. Ask the participant to hold their landing position and mark the nearest contact point, which will be the back of the heel closest to the start line. Mark the point with chalk, string, tape or a pencil.
6. Measure the distance from the starting line to the marked point using the tape measure.
7. The participant performs two attempts of the standing long jump with about 2 minutes rest in between.

### How to record the score

Record the distance jumped in centimeters for both attempts. The best of the two attempts is the score.

## Balance: Single Leg Stance – Eyes Open

### Objective:

To stand on one leg with the eyes open and maintain balance for as long as possible.

### Purpose:

The Single-Leg Stance Test with Eyes Open measures static balance and postural control with the assistance of visual cues.



### How to record the score

The total time completed before loss of balance is recorded to the nearest second.

### How to prepare for the test

#### Equipment/Space Required:

- Timer or stopwatch
- Stable surface to hold on for support:
  - Chair
  - Bleachers
  - Wall
- Flat, non-slip surface
- Pencil/Pen
- Score Sheet

### How to administer the test

1. Inform the participant that the Single Leg Stance Test measures balance and the goal of the test is to stand on one leg for as long as possible without holding on.
2. Explain the testing procedures while you demonstrate the proper form. The participant practices the single leg stance position and maintains their balance for at least a few seconds before the test. Offer feedback on the practice trial so that the participant understands the protocol and is clear on the proper form.
3. Ask the participant to choose their dominant leg. This will be the supporting leg that remains straight and holds the body weight. If a participant is unsure which leg is their dominant one, ask them which leg they would kick a ball with and select that as the supporting leg.
4. Record whether the supporting leg is the left or right. The participant should use the same leg in future testing sessions.
5. The participant stands with their feet shoulder width apart and positioned within arms' reach of a stable/stationary item for safety purposes. The participant should not hold on or lean during the test.
6. Instruct the participant to place their hands on their hips and place the foot of the non-supporting leg against the inside knee of the supporting leg with the thigh rotated outward. If a participant is unable to place their foot on inner knee of the supporting leg, they may stand with their knee bent and foot held off the ground.
7. Start the timer as soon as the participant is in the correct standing position and balanced. Ask the participant to maintain their balance for as long as possible.
8. Stop the timer when balance is lost which is when the non-supporting foot loses contact with the knee or touches the ground, or when the hand(s) come off the hips.

## Balance: Single Leg Stance – Eyes Closed

### Objective:

To stand on one leg, with eyes closed and maintain balance for as long as possible. If a participant is unable to keep their eyes closed, then a blindfold can be used when administering this test as long as the person agrees to being blindfolded.

### Purpose:

The Single-Leg Stance Test with Eyes Closed measures static balance and postural control without the assistance of visual cues. This test is a progression of the Single Leg Stance Test with Eyes Open and should be used for those participants who have higher balance skills and abilities.



### How to prepare for the test

#### Equipment/Space Required:

- Timer or stopwatch
- Stable surface to hold on for support:
  - Chair
  - Bleachers
  - Wall
- Flat, non-slip surface
- Pencil/Pen
- Score Sheet

### How to administer the test

1. Inform the participant that the Single Leg Stance test with Eyes Closed measures balance and that the goal of the test is to stand on one leg with eyes closed for as long as possible without holding on.
2. Explain the testing procedures while you demonstrate the proper form. The participant practices the single leg stance position and maintains their balance for at least a few seconds before the test. Offer feedback on the practice trial so that the participant understands the protocol and is clear on the proper form.
3. Ask the participant to choose their dominant leg. This will be the supporting leg that remains straight and holds the body weight. If a participant is unsure which leg is their dominant one, ask them which leg they would kick a ball with and select that as the supporting leg.
4. The participant will stand with their feet shoulder width apart and is positioned within arms' reach of a stable/stationary item for safety purposes. The participant does not hold on or lean during the test.
5. Instruct the participant to place their hands on their hips and place the foot of the non-supporting leg against the inside knee of the supporting leg with the thigh rotated outward. If a participant is unable to place their foot on inner knee of the supporting leg, then they may stand with their knee bent and foot held off the ground.
6. Start the timer as soon as the participant is in the correct standing position, balanced, and has their eyes closed. Ask the participant to maintain their balance for as long as possible.
7. Stop the timer when the participant opens their eyes or when balance is lost which is when the non-supporting foot loses contact with the knee or touches the ground, or when the hand(s) come off the hips.

### How to record the score

The total time completed before loss of balance is recorded to the nearest second.

## Flexibility: Modified Apley's Shoulder Flexibility Test

### Objective:

To bring the fingertips of both hands as close as possible together behind the back.

### Purpose:

The Modified Apley's Shoulder Flexibility Test measures shoulder rotation and range of motion.

### How to prepare for the test

#### Equipment/Space Required:

- Ruler or Tape Measure
- Pencil/Pen
- Score Sheet

### How to record the score

The distance between the tips of the middle fingers, or the amount of overlap, is recorded to the nearest centimeter.



### How to administer the test

1. Inform the participant that the Modified Apley's Shoulder Flexibility Test measures shoulder range of motion and that the goal of the test is to reach behind the back with both hands and touch the fingertips together.
2. Explain the testing procedures while you demonstrate the proper form. The participant practices the correct position two times. Offer feedback on the practice trial so that the participant understands what is being asked of them and is clear on the proper form.
3. This test is performed while in a standing position unless a participant uses a wheelchair, in which case it can be performed in a seated position.
4. Instruct the participant to place one hand behind their head and back over the shoulder, and reach as far as possible down the middle of their back. The palm should be in contact with their body and the fingers directed downwards. The other (lower) arm should be placed behind their back with the palm facing outward and fingers upward.
5. Provide physical guidance to assist the participant in correctly placing their hands and aligning their fingers if needed, but do not pull or tug on a person's arm.
6. Ask the participant to reach as far as possible and try to touch their fingers on both hands together. The movement should be done slowly and held for 1-2 seconds in order to get an accurate measure.
7. Record which arm, the right or left, is the upper arm so that the test the same way in future testing sessions.
8. Use a ruler or tape measure to measure the distance of the distance between the tips of the middle fingers in centimeters. If the fingertips touch, then record the distance as zero (0 cm). If the fingertips do not touch, the distance between them is recorded as a negative score. For example, -2.5 centimeters. If the fingertips overlap, then the amount (distance) of overlap distance is recorded as a positive score. For example, +2.5 centimeters.



## Flexibility: Modified Sit and Reach

### Objective:

To reach forward as far as possible while in a seated position with knees fully extended and feet apart.

### Purpose:

The Modified Sit and Reach test is a variation of the standard sit and reach test used when a testing box is not available. This test measures flexibility of the hamstring and lower back muscles.



### How to record the score

Record the score to the nearest whole unit, the number of inches or centimeters, for all three attempts. Once again, the number is negative if the reach was before the baseline and is positive if it is past the baseline. The best of the attempts is the score.

### How to prepare for the test

#### Equipment/Space Required:

- Tape Measure
- Colored floor tape, chalk
- Pencil/Pen
- Score Sheet

Mark a straight line about 24 inches on the ground with tape or chalk, or use a pre-existing line. This is the baseline. Secure the measuring tape perpendicular to the baseline. This is the measuring line. The point where the measuring tape and the base line intersect is considered zero. If you have access to a flexibility testing box then use that to measure.



### How to administer the test

1. Inform the participant that the Modified Sit and Reach Test measures how flexible their hamstring and lower back muscles are and that the goal of the test is to reach forward as far as possible while keeping both legs straight.
2. Explain the testing procedures while you demonstrate how to perform the reach correctly. The participant practices 2-3 reaches using correct form. Offer feedback so that the participant understands and is clear on the proper form.
3. The participant removes their shoes.
4. The participant is in a seated position with their heels just behind the baseline with feet about 12 inches apart. The legs should be in a V-shape. Both legs should be fully extended with the knees straight and locked, and feet flexed.
5. The measuring line is between the participant's legs.
6. Instruct the participant to extend their arms forward with palms facing down and overlap the hands one on top of the other. Place the fingertips on the measuring line.
7. The participant keeps their legs straight and feet flexed, and reaches forward as far as possible while sliding their hands along the measuring line. The tester may assist by placing a hand on the straightened legs to indicate proper positioning.
8. The reach should be performed slowly with control and the hands must remain even with one another and shoulders square. No bounces or jerky movements. Instruct the participant to hold the reached position for at least 1 second while the measurement is taken.
9. Record the distance from the baseline, which is the zero point. The distance before the baseline is recorded as a negative number, and beyond the baseline is a positive number.
10. The participant performs three attempts of the test.

## Muscular Strength: Hand Grip Strength

### Objective:

To squeeze the hand dynamometer as forcefully as possible.

### Purpose:

The Hand Grip Strength Test measures the isometric strength of the hand and forearm muscles.



### How to record the score

Record the scores of each attempt to the nearest kilogram. Also record which hand was used. The best of the two attempts is the score.

### How to prepare for the test

#### Equipment/Space Required:

- Hand Grip Dynamometer
- Pencil/Pen
- Score Sheet

To conduct the Hand Grip Strength Test, you will need a hand grip dynamometer. Digital dynamometers are easy to use and can be purchased online for low cost.

### How to administer the test

1. Inform the participant that the Hand Grip Strength Test measures how strong their hand and forearm muscles are and that the goal of the test is to squeeze the hand dynamometer as hard as possible with each hand.
2. Explain the testing procedures while you demonstrate how to squeeze the dynamometer. The participant practices the test once using each hand before you begin. Offer feedback so that the participant understands and is clear on the proper form.
3. The dynamometer should be adjusted to fit the participant's hand. The handle should be in the middle of the four fingers, and the base should be on the heel of the hand.
4. Set the dynamometer dial to zero.
5. The participant bends their elbow to 90 degrees. Instruct the participant to keep their arm at their side while squeezing and not to touch the dynamometer to their body. The hand (right or left) to be tested first can be selected at random.
6. Instruct the participant to squeeze the dynamometer "as hard as possible" and to hold for 5 seconds. The tester should encourage the participant to make their maximum effort and can count out loud to 5 seconds during the hold.
7. The participant performs two attempts on each hand.
8. Record the score and reset the dynamometer to zero before switching hands. The participant will perform two attempts with each hand with 30 seconds rest in between.

# Muscular Strength: Maximal Repetition Curl-Up

## Objective:

To perform as many continuous curl-ups as possible using the correct form.

## Purpose:

The Maximal Repetition Curl-Up Test measures abdominal strength and endurance.



## How to prepare for the test

### Equipment/Space Required:

- Flat, clean, soft surface
- Metronome (optional)
- Pencil/Pen
- Score Sheet

The Maximal Repetition Curl-Up Test is performed on a flat, clean, soft or grassy surface. A metronome can be used to provide a continuous rhythm or cadence for participants to follow, however, this item is optional.

## How to administer the test

1. Inform the participant that the Maximal Repetition Curl-Up Test measures how strong their abdominal muscles are and that the goal of the test is to do as many curl-ups as possible without stopping.
2. Explain the testing procedures while you demonstrate the proper form. The participant practices the position and performs 2-3 repetitions of the skill before you begin. Offer feedback so that the participant understands and is clear on the proper form.
3. The participant starts in a supine position, lying on their back, with knees bent to 90 degrees and feet flat on the ground. The feet should not be held or stabilized.
4. Arms are extended and hands are placed on the front of the thighs. The head is in a neutral position resting on the ground surface.
5. Instruct the participant to curl up slowly by raising their upper back and head in a controlled movement and slide their hands up until their fingertips contact their knees. Then the participant is instructed to slowly lower back down again to the lying position.
6. The participant's shoulders should raise up off the ground surface by 2 inches, and one complete curl-up should be performed every 3 seconds.
7. Ask the participant to perform as many curl-ups as they can, making sure to raise all the way up and lower all the way down on each repetition. Feet must remain in contact with the ground surface at all times. Also, curl-ups should be performed continuously at a consistent tempo, this means without any pause at the top or bottom of the skill.
8. Cue the participant to begin by saying "ready, set, go."
9. Correct a participant (verbally or using physical guidance) if they do not use the proper technique or if they pause at any point.
10. Encourage participants to breathe as they perform the test, preferably exhaling while curling up to touch the knees.
11. The completion of one full curl-up, up and down, counts as one. Only correctly performed curl ups should be counted.
12. The test continues until the participant cannot perform the curl-ups continuously without pausing, or when there is a break in technique for two consecutive repetitions. A break in technique means the shoulders are not raised up 2 inches, the head does not return to the ground surface, the heels come off the floor, or the fingertips do not reach the kneecaps.

## How to record the score

Record the total number of correctly performed curl-ups that a participant performs.

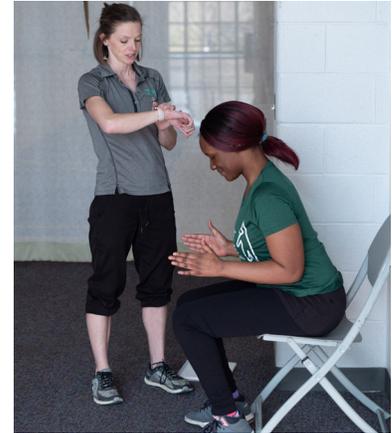
## Muscular Strength: Timed Sit-to-Stand

### Objective:

To perform 10 full stands from a seated position as quickly as possible without using the arms to assist.

### Purpose:

The Timed Sit-to-Stand test measures lower body muscular strength and endurance.



### How to prepare for the test

#### Equipment/Space Required:

- Level, flat surface
- Timer or stopwatch
- Chair or Bench
- Metronome (optional)
- Pencil/Pen
- Score Sheet

The Sit-to-Stand Test is performed on a level, flat surface. You will need a timer or stopwatch and a chair without arm rests or a bench. Bleachers would also work well. The seat height should be at a level where the participant is sitting with their knees and hips at approximately 90 degrees. If you are using a chair or bench, place it against a wall or otherwise stabilize it if possible.

### How to administer the test

1. Inform the participant that the Timed Sit-to-Stand Test measures how strong their lower body muscles are. Tell them that the goal of the test is to perform 10 full stands from a seated position as quickly as possible without using their arms.
2. Explain the testing procedures while you demonstrate a few repetitions of the sit to stand. The participant practices the skill before you begin, and provide feedback so that the participant understands and is clear on the proper form.
3. Instruct the participant to sit on the chair or bench with their feet about hip width distance apart. Arms are positioned by the sides with the elbows flexed to 90 degrees. Arms will remain in this position for the entire test.
4. Ask participants to stand up fully from the sitting position and then sit down again without using their arms to assist. Instruct them to repeat this movement 10 times as fast as possible while standing completely up and then sit completely back down.
5. Cue the participant to start by saying "ready, set, go" and start the stopwatch.
6. If you are unable to stabilize the chair or bench against a wall, then stand beside the participant in case of balance loss
7. It may be helpful to count the repetitions out loud.
8. Stop the stopwatch when the participant sits down on the 10th repetition.

### How to record the score

Record the total time to perform the 10 complete sit to stand repetitions to the nearest second.

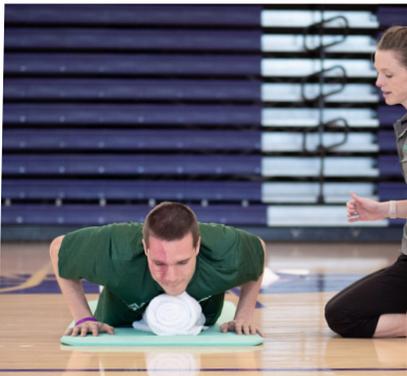
# Muscular Strength: Maximal Repetition Push-Up

## Objective:

To perform as many continuous push-ups as possible using the correct form.

## Purpose:

The Maximal Repetition Push-Up Test measures upper body muscular strength and endurance.



## How to prepare for the test

### Equipment/Space Required:

- Mat or soft surface
- Small ball or soft item
- Metronome (optional)
- Pencil/Pen
- Score Sheet

The Maximal Repetition Push-Up Test is performed on a mat, or a soft/grassy surface if a mat is unavailable. To assist participants in understanding the correct push-up form, a small ball or a soft item such as a rolled up towel may be used. These items are optional.

## How to administer the test

1. Inform the participant that the Maximal Repetition Push-Up Test measures how strong their upper body muscles are and that the goal of the test is to perform as many push-ups as possible without stopping.
2. Explain the testing procedures while you demonstrate the proper form. The participant practices the position and performs 2-3 repetitions of the skill. Offer feedback so that the participant understands and is clear on the proper form.
3. Instruct the participant to get into a starting push-up position with hands flat on the ground, arms straight and shoulder width apart. Legs are extended straight back with toes touching the ground and the body is in a straight line.
4. If you have access to a small ball or other soft item like a rolled towel, place under the participant's chest as a tactile cue to indicate to them how far to lower the body down during the push-up.
5. Keeping the back and knees straight, the participant lowers their body down until there is a 90-degree angle at the elbows or until the chest comes into contact with the ball, and then returns back to the starting position with the arms fully extended.
6. Ask the participant to perform as many push-ups as they can, making sure to maintain the proper form. Push-ups should also be performed rhythmically at a consistent tempo, this means without extended rest periods between each one.
7. Cue the participant to begin by saying "ready, set, go."
8. Correct a participant (verbally or using physical guidance) if they break the proper form or stop for a rest.
9. Encourage participants to breathe as they perform the test, preferably exhaling while pushing back up to the starting position.
10. The completion of one full push-up, up and down, counts as one. Only correctly performed push-ups should be counted.
11. Stop the test when there is a break in form for two consecutive repetitions or when the participant rests for longer than 5 seconds and cannot stay with a regular tempo. A break in form means when movement such as bending, sagging, or swaying occurs at the elbows, shoulders, trunk, or knees.
12. Participants who are unable to complete even one push-up repetition can be assessed using the Isometric Push-Up Test that is described next.

## How to record the score

Record the total number of correctly performed push-ups that a participant performs.

## Muscular Strength: Isometric Push-Up

### Objective:

To hold a raised push-up position, often referred to as high plank, for as long as possible.

### Purpose:

The Isometric Push-Up Test measures upper body muscular strength and endurance and core stability. This test is an alternative to the Maximal Repetition Push-Up Test and may be used to assess participants who are unable to perform a standard push-up using the correct form, or for those who find an isometric hold preferable.



### How to prepare for the test

#### Equipment/Space Required:

- Timer or stopwatch
- Mat, or soft surface
- Pencil/Pen
- Score Sheet

### How to administer the test

1. Inform the participant that the Isometric Push-Up Test measures how strong their upper body muscles are and that the goal of the test is to hold a push-up position for as possible.
2. Explain the testing procedures while you demonstrate the proper form. The participant practices the position before testing. Offer feedback so that the participant understands and is clear on the proper form.
3. Instruct the participant to get into a starting push-up position with hands flat on the ground, arms straight and shoulder width apart. Legs are extended straight back with toes touching the ground and the body is in a straight line.
4. Ask the participant to hold the position for as long as they can, making sure to maintain the proper plank position. Start the timer when the participant is in the position.
5. Correct a participant (verbally or with physical guidance) if they break the proper form so that they may work to regain it quickly.
6. Encourage participants to breathe as they perform the test.
7. Stop the test when correct form cannot be maintained for 5 seconds or longer. That means when any movement such as bending, sagging, or swaying occurs at the elbows, shoulders, trunk, or knees.

### How to record the score

Record the total time that the participant holds the correct position to the nearest second.

## Muscular Strength: Seated Isometric Push-Up

### Objective:

To push/lift the body up out of a seated position and hold for as long as possible.

### Purpose:

The Seated Isometric Push-Up Test is a measure of upper body muscular strength and endurance. This test is an alternative to the Maximal Repetition Push-Up Test and is used to assess participants who use wheelchairs for mobility or those who find it difficult to get into a push-up position.

### How to record the score

Record the total time that the participant holds the correct position to the nearest second.

### How to prepare for the test

#### Equipment/Space Required:

- Timer or stopwatch
- Mat, or soft surface
- Wheelchair, chair with arm rests, or a set of blocks
- Pencil/Pen
- Score Sheet



### How to administer the test

1. Inform the participant that the Seated Isometric Push-Up Test measures how strong their upper body muscles are and that the goal of the test is to hold a push-up position for as possible.
2. Explain the testing procedures while you demonstrate the proper form. Be sure to demonstrate using the piece of equipment, either a chair or blocks, that the participant will be using for their test.
3. The participant practices the position before the test. Offer feedback so that the participant understands and is clear on the proper form.
4. Be sure that the brakes of a wheelchair are on, and if you are using a chair then push the back up against a wall. When using blocks, have the participant sit on the floor with their legs out straight and heels resting on the ground. Position the blocks on a level surface with one of either side of each hip.
5. Instruct the participant to place their hands on the armrests (or wheels if there is no armrest) of their wheelchair, the arms of a chair, or the handles of push-up blocks depending on the testing equipment.
6. The participant lifts their body off the supporting surface by fully extending their elbows until the arms are straight (or as straight as possible).
7. Ask the participant to hold the position for as long as they can, making sure to maintain the proper position with their body raised off of the supporting surface.
8. Start the timer when the participant is in the proper position.
9. Feet may be in contact with the ground surface or the wheelchair foot rests, but should not be used to assist participant in lifting up their body. Encourage participants to breathe as they perform the test.
10. Stop the test and the timer when the raised position cannot be maintained and the body comes in contact with the supporting surface for 5 seconds or longer.

# Recording Sheets

Special Olympics Fitness Assessment  
**Testing Manual for Programs**















