

Teen Weight Training **MANUAL 2026**



Introduction

Purpose

Welcome to the Teen Weight Training Program! This program is designed to

1. Introduce youth ages 13-17 years of age to strength training and cardiovascular principles to assist in obtaining their personal fitness goals.
2. Allow youth 13-17 years of age to safely use any City of Oshawa fitness centre.

In this program you will learn:

- Proper exercise techniques
- Gym safety rules
- How to use equipment correctly
- How to build a balanced workout (F.I.T.T. Principle)

Our goal is to create a **safe, supportive, and positive environment** where everyone can learn and improve.

Benefits of strength training for teens:

- Improved strength
- Injury prevention
- Better sports performance
- Confident and healthy habits

Safety precautions:

- Always follow fitness staff directions. Ask a qualified fitness centre monitor if you have any questions or concerns, especially when using an unfamiliar piece of equipment.
- No horseplay in the weight room.
- Use equipment properly.
- Return weights to the proper location after use.
- Wipe down equipment after use- spray the paper towel not the equipment.
- No dropping weights- ensure you can control the weight back down to the floor. If you cannot, you are using too much weight.
- Report injuries immediately.
- Proper clothing and footwear (clean, indoor, close-toed running shoes, sweats or shorts).

- Plastic water bottles only- NO glass bottles in the fitness centre.
- No videoing in the fitness centre or changerooms - as it is a privacy violation.
- Do not perform an exercise if you feel pain, discomfort, dizziness or are sick.
- Allow proper time to warm up, cool down and stretch.
- When performing an exercise for the first time, begin at the lowest weight and gradually increase until you meet your physical demand and ability.

Gym etiquette

Expectations in a shared gym space:

- Respect other participants, their space and weight equipment
- Share equipment
- Allow others to work in
- Keep the area around you clear of obstacles
- Be aware of your surroundings
- Respect staff instructions
- Always wipe down your equipment after using

Strength training and terminology

Repetition (rep):

Each individual movement of an exercise is called a repetition.

Set:

A group of repetitions is a set (e.g. “one set of 10 reps”.)

Rest Period:

A rest period between sets lasting anywhere from 30 – 60 seconds.

Exercise:

A set or group of sets performed on a specific body part.

Strength:

The force that can be exerted in one maximal contraction.

Muscle endurance:

The ability to perform repeated contractions or hold a contraction for a period of time.

Strength training:

Any method used to improve strength: free weights, machines or body

F.I.T.T. Principle

The F.I.T.T. is what is necessary to gain a training effect from an exercise program.

F.I.T.T. =

- Frequency
- Intensity
- Time
- Type

We use the F.I.T.T. principle for ALL training:

- Warm up
- Cardio
- Resistance
- Stretching

F.I.T.T. Principle IN A NUTSHELL

F Frequency: How often?	Warm Up	Cardio	Resistance	Stretch
	Every time	3-5 times per week	2-3 times per week	Every time
I Intensity: How hard?	50% MHR	50-70% MHR (beginner)	10-15 reps (beginner) for 1-3 sets	Mild tension (NO pain)
T Time: How long?	3-5 min.	12-15 min (beginner)	4-6 seconds per rep	20-30 seconds for each stretch
T Type: What kind?	Large muscle groups Light cardio	Large muscle groups Rhythmic	Major exercises for large muscles first. Then target specific, single or smaller muscles	For each muscle group

Components of an exercise program:

1. Warm Up

A thorough warm up, completed before training is important because it prepares the body for additional stress and overload.

It also:

1. Increases muscle and core temperature
2. Decreasing the likelihood of injury

F Frequency: How often?	Warm Up Every time
I Intensity: How hard?	50% MHR
T Time: How long?	3-5 min.
T Type: What kind?	Large muscle groups Light cardio

2. Cardiovascular Training

F Frequency: How often?	Cardio 3-5 times per week
I Intensity: How hard?	50-70% MHR (beginner)
T Time: How long?	12-15 min (beginner)
T Type: What kind?	Large muscle groups Rhythmic movement (I.e. walking, running, cycling, rowing, swimming)

Calculating Maximum Heart Rate (MHR):

$220 - \text{Age} = \text{Max Heart Rate}$

Calculating the target heart rate zone for a 16 year old person:

Example:

$220 - 16 = 204$ bpm (beats per minute)

Beginner: 50%-70%

$204 \times 50\% = 102$ bpm low end

$204 \times 70\% = 143$ bpm high end

Range: □ 102 bpm-143 bpm

To ensure you are training at the right intensity your heart rate should fall in the range calculated above (50%-70% range)

How to check your heart rate:

- Wrist- on the thumb side approximately 2 cm above the wrist
- Neck- at the side of the neck below the ear, next to the windpipe
- On cardio equipment- hand held sensors

Knowing your heart rate is important because:

- It ensures you are training at the right intensity to gain benefits.
- It ensures you are exercising at a safe intensity.
- It can tell you the amount of time you exercised in your target heart rate zone.

The Talk-Test Method

- Especially useful for beginners, the talk test is used to determine your aerobic intensity.
- If you can carry on a conversation during your workout, you need to work harder
- If you are gasping for air, you are working too hard and need to scale it back.

3. RESISTANCE TRAINING

F Frequency: How often?	Resistance 2-3 times per week Include a recovery day between resistance training days if you choose a split program
I Intensity: How hard?	10-15 reps (beginner) for 1-3 sets If you cannot complete 12 reps in good form, your weight is too heavy If 15 reps can be completed comfortably, you need to increase your lifting weight
T Time: How long?	4-6 seconds per rep 30 sec. to 1 min. between sets
T Type: What kind?	Exercise large muscles first. Then target specific, single or smaller muscles as they get tired faster.

4. STRETCHING

F Frequency: How often?	Stretch Every time
I Intensity: How hard?	Mild tension (NO pain)
T Time: How long?	20-30 seconds for each stretch
T Type: What kind?	For each muscle group

5. SPOTTING

A spotter is someone who assists or supervises you during a lift to help prevent injury if you fail a repetition. In strength training, a spotter is required when a lift has a risk of trapping you under the weight or causing loss of control.

Examples of when you need a spotter:

1. When the weight can trap you

A spotter is important when failing the lift could **pin the bar or weight on your body**.

Common examples:

- Barbell Bench Press
- Barbell Back Squat
- Incline Bench Press

If you fail these lifts, the bar could fall onto your chest, neck, or back, making a spotter critical for safety.

2. When lifting near maximal effort

If you are lifting **very heavy loads**, especially:

- **1-rep max (1RM) attempts**
- **2–5 rep heavy sets**
- **Training to Failure**

A spotter helps you **complete the lift safely or guide the bar back to the rack** if you cannot finish the rep.

3. When using free weights above your body

Exercises where the weight is **held over your face, chest, or head** are higher risk.

Examples:

- Dumbbell Bench Press
- Dumbbell Chest Press

A spotter can help **lift the dumbbells into position or catch them if control is lost**.

4. When learning a new complex lift

Beginners should use a spotter when learning movements that require **coordination and stability**, such as:

- Barbell Back Squat
- Bench Press

A spotter can also **give technique cues and monitor form**.

5. When fatigue or instability is likely

Spotters are helpful when:

- Doing **high intensity drop sets**
- Training when **very fatigued**
- Recovering from injury
- Lifting in a **crowded or unfamiliar gym**

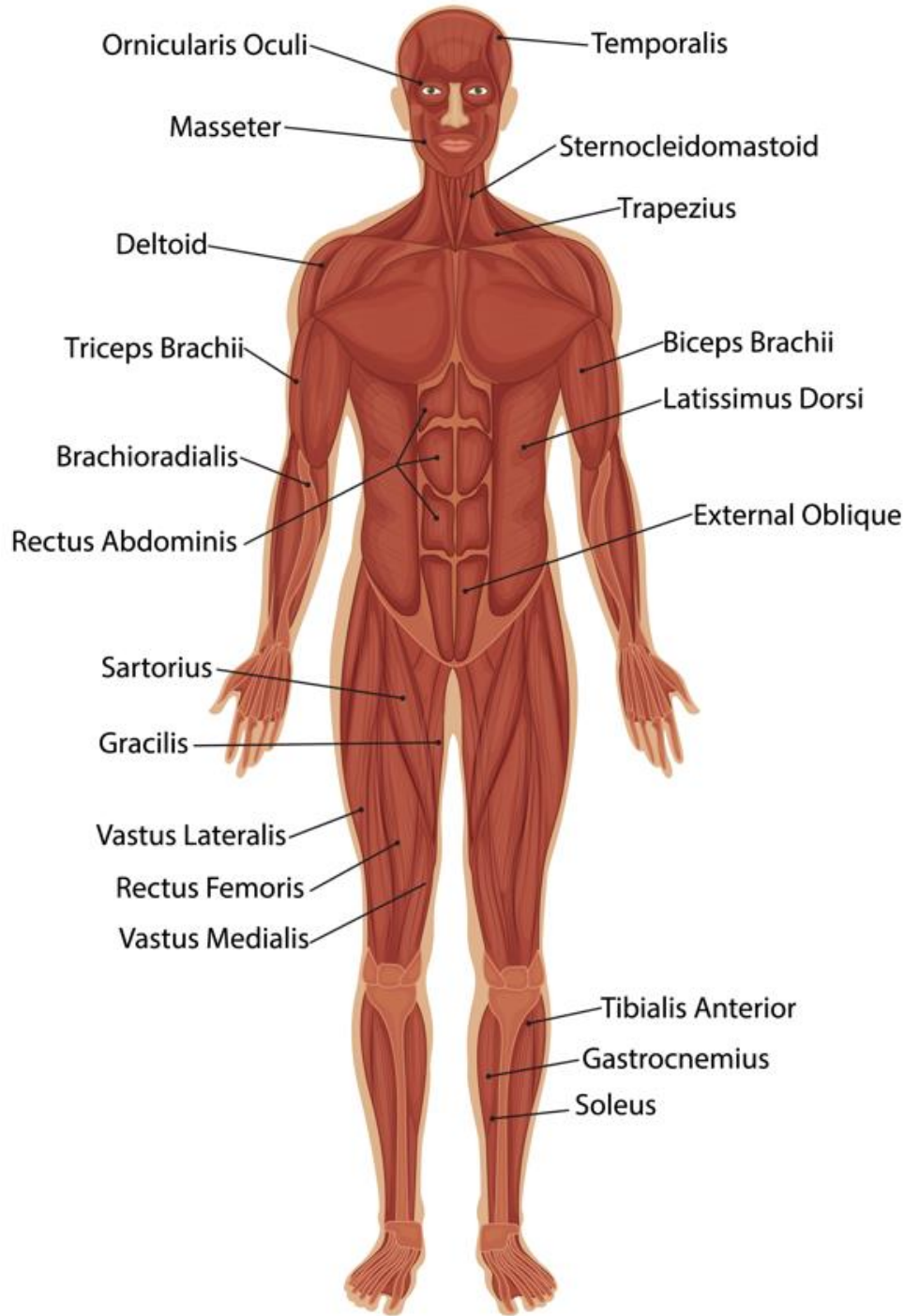
Tips for training:

- 1) **Set a goal.** Decide what you want to get out of your workout. Be sure your goal is something specific like “I want to lift an extra 5 pounds today” or “I want to be able to run a 5-kilometer fund raiser next month”
- 2) **Be consistent.** Once you commit to weight training, stick with it.
- 3) **Learn proper form and technique.** Make sure your whole body is properly aligned to protect your joints and back.
- 4) **Get tired.** Working muscles to fatigue builds endurance and strength. Do one set of 12 reps or 3 sets of 15 if it tires the muscle.
- 5) **Vary your exercises.** Change the exercises about every 6 or 12 weeks using a different exercise for the same muscle group to keep progressing.
- 6) **Move slowly.** Take 1-2 seconds to contract the muscle, hold the contraction for 1 second, and then slowly release for 3 or 4 seconds.
- 7) **Work balanced muscles groups.** Every muscle has an opposing muscle so be sure to work the entire pair. For example, follow stomach crunches with back extensions and bicep curls with tricep kickbacks.

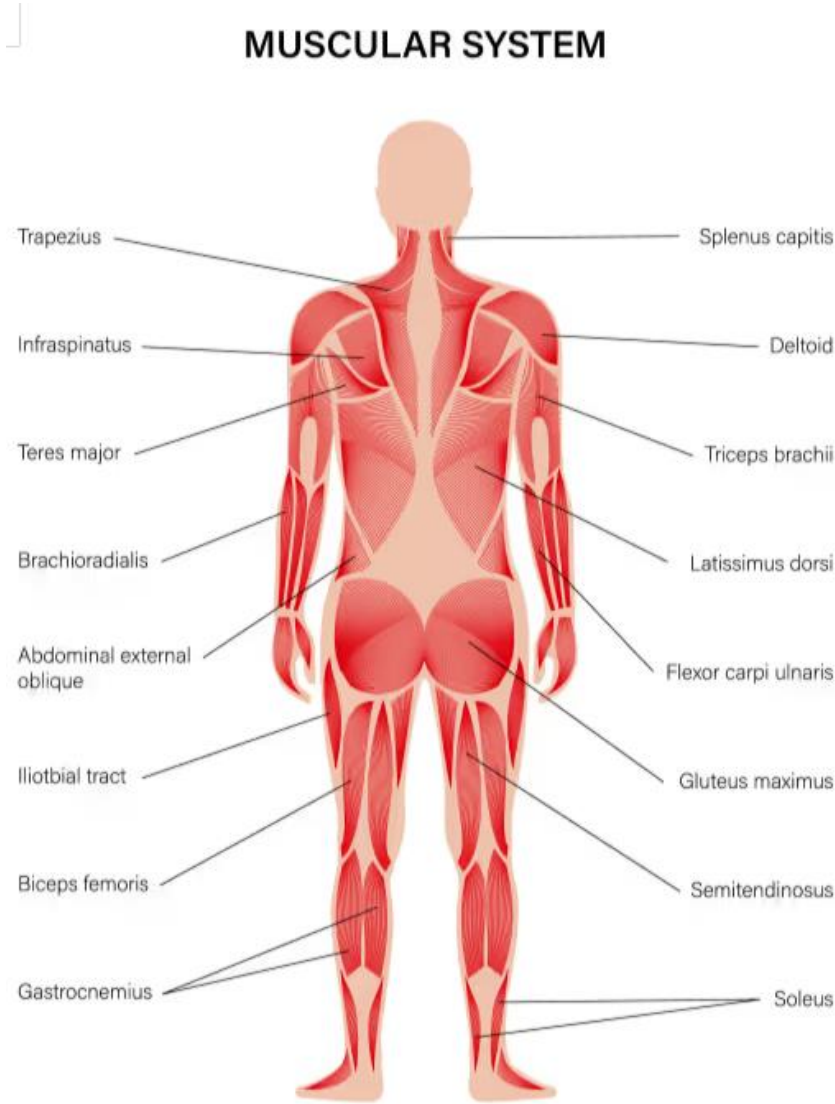
- 8) **Choose a workout partner.** A lifting partner is helpful not only for spotting but for motivation and encouragement as well. When your arms are feeling like Jell-O and you think you've got nothing left to give, a little encouragement from a friend may be all you need to push out that final rep.
- 9) **Be patient.** It takes time to see the benefits of weightlifting. Changes in muscles won't show for four to six weeks, but in the meantime, your muscles are learning how to perform more efficiently.

BODY MAP - Front

Human Muscle Anatomy



BODY MAP- BACK



COMMON MACHINE EXERCISES

1. Seated Row (Trapezius, Rhomboids, Teres Major)

- Adjust seat height so that chest pad is in middle of your chest.
- Adjust chest pad so that you can reach handles with arms outstretched.
- Grasp handles and pull towards you **squeezing shoulder blades together**.
- Slowly lower the weight and repeat.



2. Lat Pull Down (Latissimus Dorsi, Rhomboids, Teres Major)

- Adjust seat so your feet are directly under your knees and knees are bent at a 90-degree angle
- Lower the knee pad onto your thighs.
- Grasp bar at the bend, lean back slightly and pull the bar down to the front of the chest.
- Slowly let the bar go up so that the arms are extended again.
- Always look up at the bar.



3. Chest Press (Pectoralis Major/Minor, Triceps, Deltoids)

- Adjust seat height so handles are even with the middle to upper chest.
- Slowly push the weight forward so that the arms are extended but not locked at the elbow.
- Slowly lower the weight to just above the weight stack and repeat.
- This machine has a cheater foot bar.



4. Shoulder Press (Deltoids, Triceps)

- Adjust seat height so that the handles are even with the top of the shoulders.
- Push the weight upwards and extend arms fully **but do not lock elbow**.
- Lower weight slowly; do not let your hands come lower than shoulder level.



5. Leg Extension (Quadriceps)

- Adjust back pad so that your **knee joint aligns with the red dot marker** on the side of your machine.
- Adjust ankle pad so that the pads rest at the front of ankle joint.
- Slowly extend the knee full **but not locked**.
- Lower the weight and repeat



6. Leg Curl (Hamstrings)

- Adjust back pad so that **knee aligns with the red dot marker** on the side of your machine.
- Adjust ankle pad so that it lies across the Achilles tendon of the ankle
- Lower the thigh pad to fit across lower thigh
- Flex the knee and curl the ankle pad towards your buttocks
- Raise slowly and repeat 12



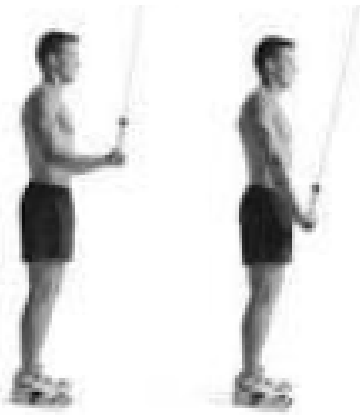
7. Leg Press (Quadriceps)

- Adjust back pad so that upper thigh and knee form 90-degree angle
- Extend legs until knees are straight **but not locked**
- Lower the weight to near the starting position, just above weight stack and repeat



8. Tricep Press Down (Triceps)

- Adjust the pulley so that the attachment is above your shoulder. Use the V-bar, short bar or rope.
- Grasp bar and pull down so that the forearm and upper arm form a 90degree angle- This is the starting position.
- Now extend the forearm by pressing the bar downwards- **do not lock the elbows.**
- Slowly return to the starting position and repeat.



9. Bicep Curl (Biceps)

- Adjust the pulley to the bottom.
- Use bar attachment.
- Stand with feet apart and knees bent.
- Curl the bar towards you, flexing your elbow.
- Slowly lower and repeat.



10. Bicep Curl (Biceps)

- Adjust chest pad to align elbow joint with red dot marker
- Stand and grasp bar and anchor elbows to pad
- Lift weight halfway up and sit down
- Lift weight to the shoulder keeping wrists stacked
- Lower weight back down keeping elbows slightly bent not locked
- Repeat



Body Weight Exercises

1. Squats (Gluteals, hamstrings, quadriceps, calves, abs)

- While looking straight ahead, lower body as if going into a seated position. **Lower no further than hips level with knee joint.**
- Rise to standing position.
- Can use your arms for balance
- Repeat till set completed
- Can use your arms for balance



2. Pushups (Pecs, Triceps, Biceps, Abs)

- With palms directly under the shoulders and shoulder width apart extend legs out lift the body into plank position (start position)
- Engage the shoulder girdle and the core
- Slowly lower the body towards the floor
- Slowly lift the body back to start position



3. Planks

- Palms directly under the shoulder and shoulder width apart with legs extended on toes; hold this position
- Shoulder girdle and core engaged



If you feel ready to try the teen weight training quiz after completing reading the manual, please click on the link below.

[Teen Weight Training Quiz.](#)