



CURRICULUM ON WELLNESS

Fitness Training

Strand W5B: Home Training

Level 11

This Strand is composed of the following components:

- A. Army-Style Physical Training
- B. Home Training**
- C. Field Training

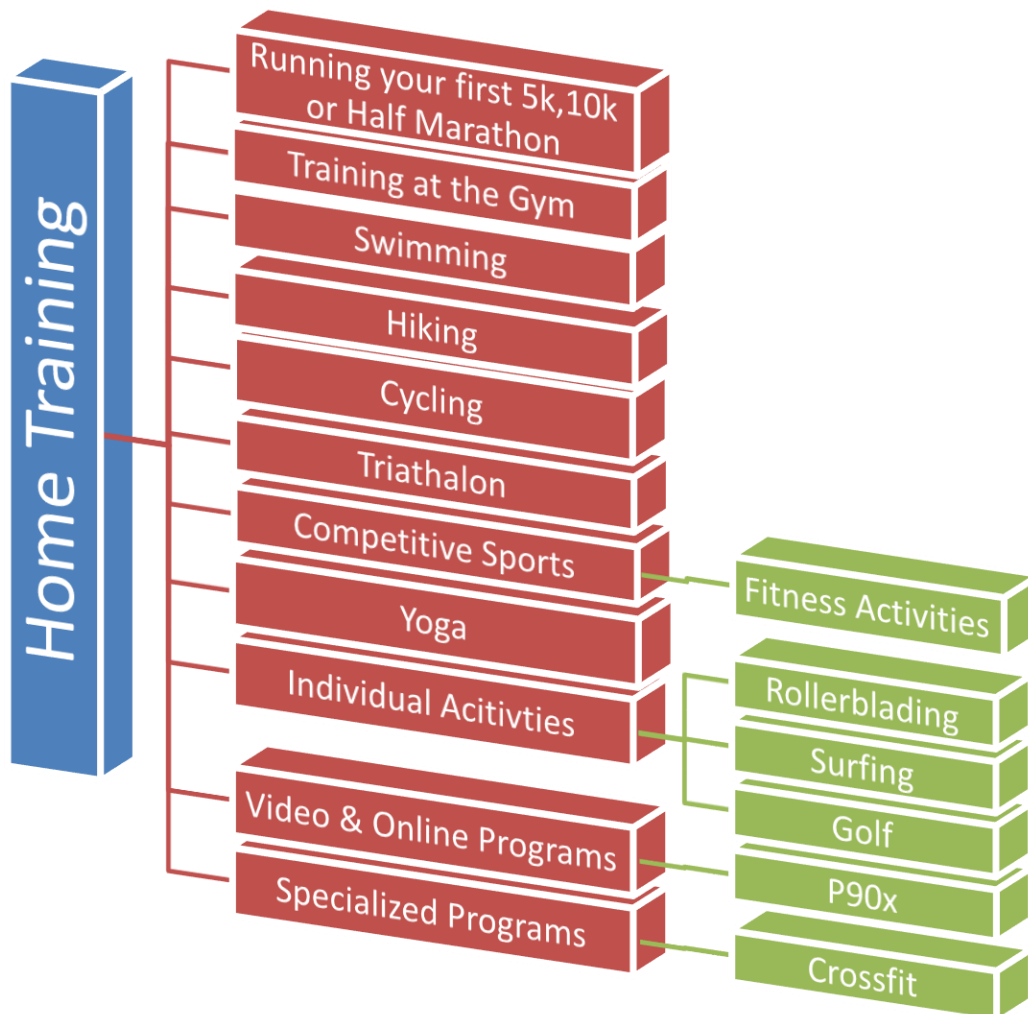


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B. Home Training

STANDARD #4: Cadets participate in a variety of fitness and wellness activities.

OBJECTIVES

DESIRED OUTCOME (Followership)

The desired outcome of this unit is for students to learn various types of exercise they might participate in to sustain a healthy lifestyle.

Plan of Action:

1. Define and explain training for 5k,10k, and half marathons
2. Give examples of physical /mental burnout
3. Express the accountability strategies to track progress with fitness
4. Explain the Run, Walk, Run method
5. Correlate military cadence application to distance training
6. Explain the difference between the different types of gyms (membership, boot camp, training, and CrossFit)
7. Identify the gym commandments
8. Explain how to execute each swimming stroke using teaching cues or phrases
9. List various careers connected to swimming
10. Describe the various benefits, risks, attire, packing expectations, and safety protocols involved in hiking
11. Explain the difference between hiking and rucking
12. List benefits and risks of cycling
13. Define the components of a triathlon
14. Identify the 4 types of triathlons
15. Explain the 2 transitions in triathlons
16. Define competitive sports/ fitness activities
17. Explain competitive stress and the positive and negative aspects of it.
18. Describe Yoga, Tai Chi, and Pilates
19. Explain how to develop an individual exercise plan
20. Describe individual fitness activities
21. Define interspecies sports
22. Explain why motorsports should or should not be considered a fitness sport
23. List items to remember when choosing a fitness video or online program
24. Describe P90X
25. Define a personal trainer and how they're certified
26. Express the difference between a fitness fad and a fitness trend
27. Describe CrossFit, its components, and how it achieves success

B1. Run your First 5K, 10K, Half Marathon

Training for your first 5k, 10k, or half marathon is a matter of commitment and willingness to want it through goal setting. A 5k is equivalent to 3.1 miles, a 10k is equivalent to 6.21 miles and a half marathon is the distance of 13.1 miles. The 5k is known as a mid-distance and the 10k and a half marathon is considered long distance. Even though the distances are various, preparing for them is similar. In preparing to run longer distances, the difference in your actions takes place in the distances you run, the calories you intake, and frequency of intensity based on personal goals.

One of the important goals of anyone preparing to run a 5k or 10k is avoiding **physical or mental burnout**, which is a withdrawal mentally, physically, or both from a previously enjoyed sport or fitness exercise passion (Weinberg, 2015). It's critically important to stay injury-free, and maintain physical health to run the race.

Factors to consider to be successful during the preparedness stage are:

- The runner must have the proper **equipment**. Proper running shoes, a watch, stopwatch or fitness tracker, clothing that is comfortable for the season, distance and level of warmth needed.
- A **running journal**, diary, blog, or daily post for reflection of positives and growth areas will help maintain physical progress as well as mental enjoyment and avoid burnout. These also track your runs in a calendar format. Train with a companion, a dog, or a small group of friends, also known as an **accountability partner**.
- Set rewards for your successes as positive reinforcement. These could be a snack or smoothie not part of your usual diet (Galloway, 2008).

Methods to success are all based on personal goals and expectations. You can use the **Galloway Run-Walk-Run method**, this trademarked method involves running for a predetermined length of time, taking a planned walk break, and repeating. It is used with beginners and even elite runners who want to recover faster. This method gives walking breaks that:

1. Control the way the runner will feel at the end of the race
2. Eases fatigue
3. Pushes your fatigue to walk back
4. Endorphins to collect at the walking stage
5. Breaks up the distance into smaller manageable units
6. Speeds up recovery
7. Reduces opportunity for aches, pains, and injuries
8. Reduces longevity fatigue for the remainder of the day
9. Allows endurance without pain
10. Allows older or heavier runners to feel good and recover faster without discouraging pains (Galloway, 2008).

Stride distance is the distance from the trailing foot's toe to the toe on the leading foot as you run. It varies from person to person and also from the type of run (Casanova, 2015). There is a rhythm of running called a **cadence** defined as steps per minute. In a sprint, the runner is taking quick shorter strides/steps due to the lack of distance, whereas mid-distance and long-distance runners normally have a more open stride length to cover more distance with less work. The mathematics to calculating **stride**

length is race distance divided by the number of steps, whereas **step frequency** is race distance divided by finishing time x stride length. A different view would be:

1. Calculate Stride length = race distance / steps
2. Calculate Step frequency = race distance / (finishing time * stride length) (Ferri, 2020).

Pacing for long runs using the WRWM for 5k and 10k race can be built into training as shown in this chart (Galloway, 2008, p. 26-27):

Magic Mile is a term used as a predictive tool matched with mathematics. To find the magic mile time for a 5k, a runner must first run an accurately measured one-mile track, record that mile's time, then add 33 seconds per mile of the 5K.

Example: "Mile time: 10:00 5K current ability: add 33 seconds = 10:33 pace per mile in a hard 5K race"

For a 10k race it's the same procedure except the runner will multiply 1.15 to the time of the one-mile run. In this instance, a 10-minute mile will become an 11:30 pace per mile (Galloway, 2008, p. 31).

The table to show examples is below (Galloway, 2008, p. 32).

Pace of long run * # of min of running/# of minutes walking	
8:00	run 4 min, walk 30 seconds
8:30	4 min run/45 sec walk
9:00	4 min run/1 min walk
9:30	3:30 run/1min walk
10:00	3 min run/1 min walk
10:30	2:45 min run/1 min walk
11:00	2:30 min run/1min walk
11:30	2:15 min run/1min walk
12:00	2 min run/1min walk
12:30	1:30 min run/1 min walk
13:00	1 min run/1min walk
13:30	30 sec run/30 sec walk
14:00	30 sec run/30 sec walk
14:30	30 sec run/40 sec walk
15:00	30 sec run/50 sec walk
15:30	30 sec run/1 min walk
16:00	30 sec run/1 min walk
16:30	25 sec run/1 min walk
17:00	25 sec run/1 min walk
17:30	20 sec run/1 min walk
18:00	20 sec run/1 min walk
18:30	15 sec run/1 min walk
19:00	15 sec run/1 min walk
19:30	15 sec run/1 min walk
20:00	10 sec run/1 min walk

One Mile Time	(+ 33 seconds) FAST 5K Pace	(multiply by 1.15) FAST 10K Pace	(add about 3 min per mile to 10K pace) Long Run Training Pace
5:00	5:33	5:45	8:45
5:30	6:03	6:19	9:30
6:00	6:33	6:54	10:00
6:30	7:03	7:28	10:30
7:00	7:33	8:03	11:00
7:30	8:03	8:38	11:30
8:00	8:33	9:12	12:00
8:30	9:03	9:47	12:45
9:00	9:33	10:21	13:30
9:30	10:03	10:55	14:00
10:00	10:33	11:30	14:30
10:30	11:03	12:05	15:00
11:00	11:33	12:39	15:40
11:30	12:03	13:14	16:15
12:00	12:33	13:48	17:00
12:30	13:03	14:23	17:30
13:00	13:33	15:00	18:00
13:30	14:03	15:33	18:30
14:00	14:33	16:06	19:00
14:30	15:03	16:40	20:00
15:00	15:33	17:15	20:15
15:30	16:03	17:50	21:00
16:00	16:33	18:24	21:30

Note: The 1.15 multiplier (for a 10K predictions) assumes that you will be running about all-out effort by the end of the race.

Conditioning is the process of improving physical capability through a program of exercises. There are many things to consider in a conditioning regimen to ensure all components of physical preparedness are strengthened. There are exercises that improve hip and calf flexibility with hurdle drills, yoga, and hip stretches, calf stretches, foam rolling, and massage. Mobility and strength for the ankle and feet are achieved through foot and ankle exercises such as abductor and adductor rolling of the ankle, as well as flexion and extension exercises. **Agility exercises** aid in improving power and step frequency such as plyometrics, bounding, acceleration drills, box jumps, and jump rope (Ferri, 2020). **Cadence drills** are defined as drills that are designed to make running more efficient and reinforce good running form, as well as to make running less boring. **Acceleration Gliders** are speed play exercises that can help you develop a range of speed and muscle conditioning to move smoothly from one speed

to the next; they allow you to glide or coast off your momentum into a faster speed. **Hill drills** combine jogging and sprinting parts of hills build strength and muscular endurance. An example of this is when runners run “switchbacks” - hills where it’s a continuous uphill but it isn’t one steep hill but pathways with small steep trails leading to the top of a hill. **Speed days** are conditioning days that focus on speed-type drills in small distance increments such as 800 meters (half-mile) 400 meters (quarter-mile), and 200 meters (one-eighth of a mile) (Galloway, 2008). During speed days a good practice to work on speed and endurance is to run **wind sprints**, where the runner does 100-200 meter sprints facing into the wind to act as natural resistance one may encounter on race day. One of the most important days in conditioning is your **rest day**. These are days you don’t run, giving the body time to recover. Taking days off also guards against injuries happening from overworking (Galloway, 2008). Programs that are *strictly* just running conditioning agendas can be like this example below (Galloway, 2008, p. 36-38).

10K—To Finish

Runners who are already running more than indicated can continue with their ratio of run-walk-run or continuous running.

Mon	Tues	Wed	Thu	Fri	Sat	Sun
Week 1 (Walkers will walk only, runners will run for 15 seconds/walk for 45 seconds on the run/walk days)						
30 min run/walk	30 min walk	30 min run/walk	30 min walk	off	3 mi run/walk	off/walk
Week 2 (Walkers will walk only, runners will run for 15 seconds/walk for 45 seconds on the run/walk days)						
30 min run/walk	30 min walk	30 min run/walk	30 min walk	off	3.5 mi run/walk	off/walk
Week 3 (Walkers will walk only, runners will run for 15 seconds/walk for 45 seconds on the run/walk days)						
30 min run/walk	30 min walk	30 min run/walk	30 min walk	off	4 mi run/walk	off/walk
Week 4 (Walkers will walk only, runners will run for 20 seconds/walk for 40 seconds on the run/walk days)						
30 min run/walk	30 min walk	30 min run/walk	30 min walk	off	3 mi with MM	off/walk
Week 5 (Walkers will walk only, runners will run for 20 seconds/walk for 40 seconds on the run/walk days)						
30 min run/walk	30 min walk	30 min run/walk	30 min walk	off	4.5 mi run/walk	off/walk
Week 6 (Walkers will walk only, runners will run for 20 seconds/walk for 40 seconds on the run/walk days)						
30 min run/walk	30 min walk	30 min run/walk	30 min walk	off	5 mi run/walk	off/walk
Week 7 (Walkers will walk only, runners will run for 20 seconds/walk for 40 seconds on the run/walk days)						
30 min run/walk	30 min walk	30 min run/walk	30 min walk	off	3 mi with MM	off/walk
Week 8 (Walkers will walk only, runners will run for 25 seconds/walk for 35 seconds on the run/walk days)						
30 min run/walk	30 min walk	30 min run/walk	30 min walk	off	5.5 mi run/walk	off/walk
Week 9 (Walkers, walk only, Runners will run for 25 seconds/walk for 35 seconds on the run/walk days)						
30 min run/walk	30 min walk	30 min run/walk	30 min walk	off	3 mi with MM	off/walk
Week 10 (Walkers, walk only, Runners will run for 25 seconds/walk for 35 seconds on the run/walk days)						
30 min run/walk	30 min walk	30 min run/walk	30 min walk	off	6 mi run/walk	off/walk
Week 11 (Walkers, walk only, Runners will run for 25 seconds/walk for 35 seconds on the run/walk days)						
30 min run/walk	30 min walk	30 min run/walk	30 min walk	off	3 mi with MM	off/walk
Week 12 (Walkers, walk only, Runners will run for 25 seconds/walk for 35 seconds on the run/walk days)						
30 min run/walk	30 min walk	30 min run/walk	30 min walk	off	6.5 mi run/walk	off/walk
Week 13 (Walkers, walk only, Runners will run for 30 seconds/walk for 30 seconds on the run/walk days)						
30 min run/walk	30 min walk	30 min run/walk	30 min walk	off	3 mi run/walk	off/walk
Week 14 (Walkers, walk only, Runners will run for 30 seconds/walk for 30 seconds on the run/walk days)						
30 min run/walk	30 min walk	30 min run/walk	30 min walk	off	Goal 10K	off/walk

Conditioning Program

Mon	Tues	Wed	Thu	Fri	Sat	Sun
Week 1 (Walkers will walk only, runners will run for 5 seconds/walk for 55 seconds on the run/walk days)						
10 min run/walk	15 min walk	13 min run/walk	18 min walk	off	1 mile run/walk	off/walk
Week 2 (Walkers will walk only, runners will run for 5 seconds/walk for 55 seconds on the run/walk days)						
15 min run/walk	20 min walk	17 min run/walk	22 min walk	off	1.25 mi run/walk	off/walk
Week 3 (Walkers will walk only, runners will run for 10 seconds/walk for 50 seconds on the run/walk days)						
19 min run/walk	24 min walk	21 min run/walk	26 min walk	off	1.5 mi run/walk	off/walk
Week 4 (Walkers will walk only, runners will run for 10 seconds/walk for 50 seconds on the run/walk days)						
23 min run/walk	28 min walk	25 min run/walk	30 min walk	off	1.75 mi run/walk	off/walk
Week 5 (Walkers will walk only, runners will run for 10 seconds/walk for 50 seconds on the run/walk days)						
27 min run/walk	30 min walk	29 min run/walk	30 min walk	off	2 mi run/walk	off/walk
Week 6 (Walkers will walk only, runners will run for 15 seconds/walk for 45 seconds on the run/walk days)						
30 min run/walk	30 min walk	30 min run/walk	30 min walk	off	2.25 mi run/walk	off/walk
Week 7 (Walkers will walk only, runners will run for 15 seconds/walk for 45 seconds on the run/walk days)						
30 min run/walk	30 min walk	30 min run/walk	30 min walk	off	2.5 mi run/walk	off/walk
Week 8 (Walkers will walk only, runners will run for 15 seconds/walk for 45 seconds on the run/walk days)						
30 min run/walk	30 min walk	30 min run/walk	30 min walk	off	2.75 mi run/walk	off/walk

Note: If you need several weeks at each run-walk ratio level, take it. This pre-conditioning training should not be stressful or painful. When in doubt, ease off.

Check on Understanding:

1. What is the Magic mile equation for a 5k runner?
2. Why is it important to train with a companion?
3. Name two ways to improve physical conditioning.

B2. Training at the Gym

For a beginner, training at the gym can be very intimidating, especially when you're not familiar with guidelines, rules, equipment, amenities, or courtesies. Some of these may seem like common knowledge but every gym has different guidelines, rules, and expectations. Most equivalent equipment will operate the same but it doesn't always seem familiar. As far as courtesies, they vary from gym to gym based on the type of gym. **Membership gyms** (24 Hour Fitness, Golds Gym, LA Fitness, etc) offer various equipment but solely operate on long term memberships that give you access to their many amenities. **Training gyms** are gyms that support one-on-one training or small group training with a fitness trainer and sell you training packages that fit your goals. **CrossFit gyms** support the CrossFit philosophy of total fitness, with limited equipment and their own training program. They usually operate in the 'class membership only' which falls into continuously being coached through your workouts in a class group. **Boot Camp gyms** are not always located in a building; sometimes they are outside, at parks, etc. They are large group workout/coaching sessions offering group coaching. They use easier and faster exercises for the client to quickly learn the movements, along with group-based motivation. (Progressive Performance, 2020)

Gym Equipment can be intimidating if you aren't familiar with it or have proper training on/with it. Gym equipment is generally categorized by cardiovascular machines, resistance machines, and free weights. All equipment except free weights usually has directions on how to use the machines. Always use as directed. If you wish to know more about machine or equipment use, ask a professional at the gym.



Cardiovascular machines are machines that allow sustained physical activity in an aerobic workout. They include treadmills, rowing machines, ellipticals, **upright bikes/stationary bikes**, **recumbent exercise bike** (resistance bike not a typical stationary bike), **spin bikes**, a stationary bike that resembles closest to a cycling bike, and stair climbers.



Resistance Machines are also known as **weight machines**. They work with an engineering process that includes levers and pulleys where resistance is formed through weights selected by moving a pin or a combination of that with body weight. These various machines include leg press machines, squat machines, leg extension machines, seated calf machines, leg curl machines, leg abduction and adduction machines, "lat" pull-down machines, chest press machines, donkey kick "butt blaster" machines, and ab crunch machines.

Free weights are defined by heavy objects lifted during exercising. These include barbells, dumbbells, weight plates, climbing ropes, kettlebells, curl bars, tricep bars, wall ball/slam balls, medicine balls, sledgehammers, and dip bar. Free weight equipment that is not weights can include items like the various benches that can be used, jump ropes, roller wheels, plyo-box, resistance bands aerobic step boxes/platforms, sleds, and punching bags. (Fit&Me, 2017)

Here are ten gym commandments for etiquette.

1. Bring and use a towel
2. Wear clean clothes
3. Don't take selfies in the gym
4. People fart, it happens- get over it
5. Your earbuds and headphones do not make you invisible
6. Do not utilize three exercise machines at the same time, it is selfish
7. No loud growls or weight clanks, it is rude
8. Do not take up residency at any one rack or machine
9. Don't make your spotter do the work
10. Put your toys away- weights always go back on their correct racks

(Zimmerman, 2019).

Training at the gym “no brainers”: wear the right clothes and footwear, bring a water bottle, towel, earphones, or headphones (no one wants to listen to your phone calls or music on speakerphone). Try to develop a routine or a schedule of workouts. Also, you may want a partner or training buddy to help encourage and spot when needed.

Check on Understanding:

1. All gyms are the same. (T/F)
2. All machines at the gyms are easy they do not need any directions. (T/F)
3. How do resistance machines work?

B3. Swimming

Swimming is a fun summer pastime, but also a great exercise towards targeted fitness. It serves as both as exercise and recreation, and is a great **whole-body exercise**. This means that it involves every muscle in the body in order to execute the action. Swimming involved no joint impact, and is a good exercise for overweight people to avoid exercise-induced injuries. It's great for improving cardiorespiratory endurance (Corbin, 2014). Swimming is a sport, recreational activity, and training exercise that requires mental accountability. It's also important to follow safety procedures during swimming. Safety protocols include wearing proper fitting bathing suit/ swimwear, wearing goggles and a nose plug, no running on the swim deck, knowing the location of the emergency phone and backboard, how to enter and exit the water, etc. Much like the old saying, “walk before you run” swimming follows stages of motion to reach a level of mastery. **Progressions** are a specific sequence of steps that build on one another to form better water tactics. General progressions begin with comfortability with the facility, pool, and the



water, then lead to **rudimentary strokes** like **dog paddle** or progression motions. These are skills such as bobs, floats, glides, stationary flutter kicks, etc. **Bobs** are simply bobbing under the water (half face then full face) blowing bubbles and surfacing. **Front float** is while still holding onto the side of the pool the person will take a

deep breath, put face into the water leaving the back of the head out of the water while the body is belly toward the pool floor stretched out but remaining touching the wall, blow bubbles, then breath as needed by raising the head to the surface. **Back floats** are similar but opposite the person will not have to take a deep breath, their back is facing the pool floor and the back of the head is submerged into the

water and their face is pointed to the sky/ceiling. **Front glide** is the next progression, the person will begin by holding on to the gutter wall of the pool, two feet on the wall, take a breath, submerge face and head while bending the knees and push off the wall with arms outstretched, palms flat together in the shape of a V. **Back glides** are the antagonist of the front glide but no face submerging, it is the same progression just opposite, start facing the wall, hands on the gutter, both feet on the wall in a crouched position, then push against the wall and glide backwards with arms softly at their side. **Flutter kick** is a fast kick of floppy feet like the person is shaking sand off their feet, the motion of the feet is an up and



down, or a fast point and flex of the ankle flowing through the toes, while still holding onto the gutter wall of the pool. **Frog Kick** is exactly what it sounds like, the kick is completed by bringing heels toward the rear end of the swimming then kicking backward and down like a frog swims.

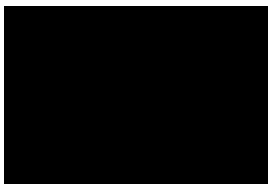
Dolphin kick is a replica of the type of motion of that of a dolphin (USMS, 2021) sometimes explained as the mermaid swim, most of the drive in a dolphin kick is driven from the hips leaving the legs a little more relaxed. **Scissor kick** is a kick that are shaped and move



like scissors operate, the legs open wide-spreading left and right then snap back together. (Moffett, 2007). **Recovery** is the term equivalent to the glide but only while in a stroke, it simply means to rest arms, or arms not to be in motion (USMS, 2021). Progressions leading to full strokes, are variations or modified portions of a swim stroke to lead to full mastery of the main 4 competitive swim strokes, 3 relaxation strokes, and the 1 rescue stroke. The four competitive strokes are Freestyle, Backstroke, Breaststroke, and Butterfly.



- **Freestyle** is also known as the **front crawl**. Its true name is the **Australian Crawl**, dubbed in the early 1900s (Stewart, 2013). The stroke is a combination of front glides, flutter kicks, with head submerged, and a few added steps. The person will move the dominant hand from the “V” shape in the glide portion (underwater portion) of the stroke, making a curvy “S” shape in the water until the fingertips come close to their hip, then raise their elbow out of the water at a 45-degree angle while simultaneously tilting their head to that side and take a breath before submerging their head again,

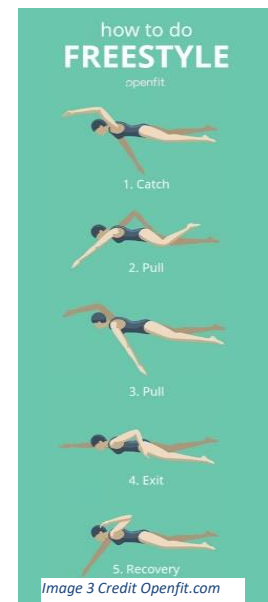


dipping their fingers and hands back in front of them to repeat the same action on the opposite side with the opposite arm without the breath (USMS, 2021). A better visual can be demonstrated and seen through this

video to the left or simply researching how to do the freestyle/ front crawl swim stroke (Global Triathlon Network, 2019).

- **Simple Movement Cues:**

- ✓ **“Arms** – Hands enter above shoulder with straight elbow. With bent elbow, move hand along the side of the body and exit slightly above thigh.
- ✓ **Recovery** – Elbow bent and high, hands close to the water and close to the body



- ✓ **Body** – Flat in the water, rolling along the axis of the spine with each stroke.
 - ✓ **Head** – Head is neutral, looking below the swimmer.
 - ✓ **Kick** – Rhythmic flutter kick keeping the feet no more than 12 inches apart. Knees straight but loose” (USMS, 2021, p.10).
- **Backstroke** is a stroke that is comprised of a combination of flutter kicks, back floatation, and reverse of the “S” shape arm movement but is executed with the swimmer facing the ceiling /sky. The body naturally rotates based on what arm is surfacing and re-entering the water which will cause a rolling feeling (Moffett, 2007).
- **Simple Movement Cues:**
 - ✓ “Arms – Hand enters slightly outside the shoulder with straight elbow. With bent elbow, move hand down along the side and “rip” out along hip leading with the thumb.
 - ✓ Recovery – Thumbs out, pinkies in - elbows straight
 - ✓ Body – Flat in the water, rolling along the axis of the spine with each stroke.
 - ✓ Head – The head is back, looking straight up and unmoving.
 - ✓ Kick – Flutter kick being careful not to lead with the knees” (USMS, 2021, p.10).
- **Breaststroke** is a unique stroke, simply because it is the only competitive stroke that is also a resting stroke. This stroke is a combination of front glides, double “S” shaped arm pulls, coupled and



timed with frog kicks. The simple cues are “pull, breath, kick glide” with that in mind, it begins from gliding off the wall, the swimmer will do a double “S” shaped arm motion in the water pulling forward and up, will surface take a breath, submerge their head into the water complete a full frog kick, and glide under the water then repeat the motions. Once the beginner masters a breath every complete cycle then they can start to surface for breathes every 2 to 3 complete cycles, or as often they safely need. An important thing to remember is this is a timing stroke (Moffett, 2007).

- **Simple Movement Cues:**
 - ✓ “Arms – This is a scull stroke. Sweep hands out, palms leading; Sweep hands in using a rowing motion. Recovery – Shoot hands forward leading with fingertips.
 - ✓ Body – A wave initiated as the arms lunge forward on the recovery.
 - ✓ Head – The head can either remain still diagonally pointed forward or moving enough to emphasize the body roll.
 - ✓ Kick – “The Frog Kick.” With knees bent heels to buns, point toes toward the wall and kick back, down and around finally squeezing legs together.

- ✓ **Timing** – For the beginner - Kick-Stretch-Pull. As the swimmer gets more comfortable - Pull-Kick-Glide” (USMS, 2021, p.10).

- **Butterfly** is one of the hardest swimming strokes to master; it requires precise **body undulation** which is a wave-type motion involving timing and rhythmical actions to execute correctly. The simple teaching/learning cues are “bump the rump to make the feet come up” is to help the undulation rhythm for the dolphin kick portion (Moffett, 2007). It is a stroke that does not have a glide other than from the beginning or flip turns during races. It is swam with the front head and eyes down or in the water. The leading body part in this stroke is the head and not the arms. It is performed using dolphin kicks one full kick at the beginning of the arm motion where the swimmers' arms surface from the water and one more forceful kick as your arms reenter the water. Double arm motions that surface out of the water completely while maintaining a high elbow position, span out arms over the surface of the water, this is



also the segment of the stroke that the swimmer will take a breath then submerge into double “S” pulls in the water, the arms are

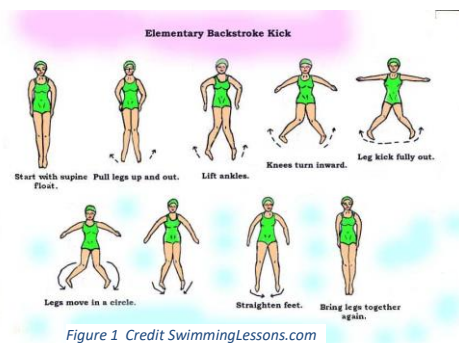


mostly responsible for the propulsion in this stroke. The stroke continues to repeat in that fashion. This can be better understood through watching it in motion by this video (Global Triathlon Network, 2020).

- Simple Movement Cues:
 - ✓ **“Arms** – Arms move simultaneously, reaching with straight elbows in front, pulling through the water with elbows bent down the middle of the body, finishing the pull with straight elbows and hands close to the hips.
 - ✓ **Recovery** – Thumbs down, elbows straight 10
 - ✓ **Body** – Like a wave rolling from the head to the feet – When the hands enter, the hips come up!
 - ✓ **Head** – Push chin on the water’s surface to get a breath. Drop head quickly to initiate body roll.
 - ✓ **Kick** – Dolphin. Feet together, undulate from the hips, knees straight but loose” (USMS, 2021, pp.9-10).

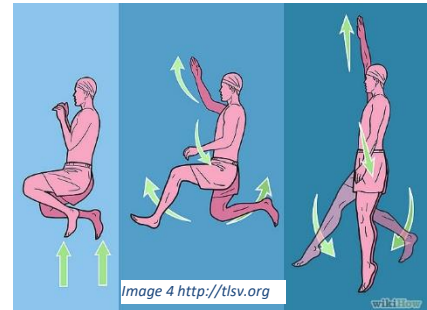
The three resting strokes are the elementary backstroke, breaststroke, and the sidestroke.

- **Elementary backstroke** is a resting stroke because it’s a little-effort stroke and can be used as a lifesaving stroke if ever in an open water situation awaiting rescue. This stroke takes little energy source, can be done for hours even by weak persons, or slightly injured persons, has low impact on joints, and cycles can be completed as the swimmer needs rest breaks. This stroke starts by beginning a back glide or back float. The elementary backstroke has multiple simple cues because it’s usually taught to younger children after they learn back floats and back glides, but it is an important stroke for all to know. A couple of simple cues are “monkey, T,



solider” or “chicken, eagle, rocket ship.” These cues signal the different phases of the stroke, Monkey/chicken is when the swimmer will pull their thumbs up the length of their body from the hips to their armpits, “T/ eagle” is the next phase this is where the arms will spread out like wings or in the shape of a “T”, “Solider/Rocketship “ phase is the propulsion phase of the stroke, and the arms will go from that T position and push with flat hands to a position of attention (as a solider) hands flat to the thighs/hip area. The kick for this stroke is a backwards frog kick; the swimmer will pull their knees toward their hips during the “monkey/ chicken” phase, dip their hips during the “T/Eagle” phase, and finish a reverse frog kick during the “Solider/rocket ship” phase, by kicking out and then pressing against the water to bring the heels back together. This stroke continues to repeat itself in this pattern and rhythm (Moffett, 2007).

- **Breaststroke** as a resting stroke is determined by the speed at which the cycle is completed. Typically, slower completion of each cycle through the phases will categorize it as a resting stroke. It allows for the full range of motion focus and resistance training for recreation rather than competition (Moffett, 2007).
- **Sidestroke** is a resting or relaxing stroke; it is not competitive. It has many applications in recreation, and even military training. This stroke is a combination of a variation of a glide, it requires undulation and is propelled by a scissor kick. It is also nicknamed by many swim instructors or coaches as the “puppet stroke”. This is because the stroke is completed by the arms and legs following the same side moving together like a puppet on a string. The stroke starts with a side glide from the wall, then based on the direction the swimmer is facing that arm and leg will move together, and the other side of extremities will move opposite. For example, in a right-side stroke, the swimmer is facing the right side; their leading arm will be their right arm. The leading arm starts outstretched in front, then makes a big “scoop/ swoop/ or C” under the water stopping at the chest area, while the left arm becomes outstretched towards the feet, then makes a “scoop/ swoop or a smaller C” under the water but in front of the side of the body, meeting the right or front hand at the chest. The legs move with the arms like a puppet, when the right or front arm is moving forward or gliding the right leg pulls towards the chest and pushes back when the arm is returning to the chest. The whole stroke should look like a puppet raising the same arm and leg while on its side with an added scissor kick. Then keep repeating the cycle, to exercise the opposite side, change facing direction, and start with the opposite arm as your gliding arm and do the same motions (Moffett, 2007).



- **Combat Side Stroke** is a military combat stroke used by Special Forces (mostly by Navy SEALs). It is used during water missions usually when the SEALs need to get through the surf and can't use fully submerged swim strokes. It allows for the swimmer to have a higher efficiency in the water while lowering the body profile from the surface.

“CSS is a combination of breaststroke, freestyle, and sidestroke. The top arm pull and breathing pattern after the top arm pull are the same as a freestyle stroke; the bottom arm pull is the same as the breaststroke arm pull; the kick is the traditional sidestroke kick. When done correctly with a five to ten-yard glide

off the wall, a swimmer should be able to reach the other side of the pool in about three strokes”(Dammann, 2017).

Swimming as an exercise can be very beneficial to anyone’s health once it is a mastered skill set for their own safety. There are numerous benefits, but the major benefit is that it’s a low-impact whole-body workout, meaning it works every muscle to execute the movements with natural resistance training because of the resistance the water creates. It works the cardiorespiratory system which aids in strengthening heart and lungs, lung capacity, as well as lowering blood pressure, and helps to control or regulate blood sugars. The low impact is good for rehabilitation of an injury, a birthed or formed disability or disease, and is easier for those with arthritis. Because it’s a whole-body exercise it burns on average more calories at low or moderate paces. On average a 160 lbs. person can burn up to 423 calories per hour of swimming laps. It improves the quality of sleep and aids in health deficits such as sleeping disorders like insomnia. It is a mood booster and aids in managing stress levels in the human body, psychologically, and has even been beneficial with those who have dementia (Marcin, 2017).

Swimming as a career has connections to military specialties and civilian careers as well. Military swimming is found in military career fields in Special Forces (US Navy SEALs, US Army Rangers and Green Berets, US Marine Corps RECON, US Air Force Pararescue), and in Homeland Security in the US Coast Guard Rescue Swimmers. All of these are



career billets only filled by the best in their field and must pass arduous tests including swimming, rescue, and water survival. Civilian careers in swimming are careers such as a collegiate athlete, Olympian, marine biologist (Orca or dolphin trainer), underwater photographer, underwater welder, airline pilots, flight attendants, ship captains and crew, boat tour specialist, Physical Education teachers, public or private swim coach, lifeguards, divers and treasure hunters.

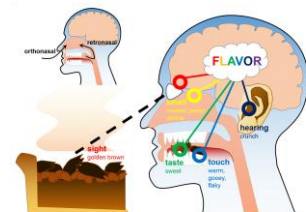


Check on Understanding:

1. Swimming must be taught/learned in progressions (T/F)
2. This _____ is a competitive stroke and a resting stroke.
3. When should someone use the elementary backstroke in a non-recreational manner, and why?

B4. Hiking

Hiking can be an activity for all fitness skill levels, and it is a well-rounded exercise or recreational pastime. It can be divided into benefit categories such as physical exercise, mental/ psychological health, and relational health. The physical aspect of hiking is that it helps the human body in building up the body structure, such as strengthening muscles and bones, which then improves balancing abilities and agility. Hiking is known to improve heart health and decrease respiratory issues. The mental health benefits of hiking is known to decrease



stress levels, reduce anxiety, and lessen the risk of depression or the amount of it. Increasing the **sensory perception**, sensing and perceiving the world around you, like the smells of nature and the feelings such as breeze or sun on the skin. Hiking can be a solo or a group activity which means you can bring a friend, a significant other, or a family member to enjoy the time together. This shared experience improves relationships (National Park Service, 2018). Hiking can be easy or difficult, depending on the hike chosen and the fitness level of the hiker. There are unlimited places to hike, especially in California, and they range from basic beginner to seasoned professional. Hiking guides can help you determine what types of hikes will work best for you.

1. Trail choice

- ✓ The individual must decide what is a safe or comfortable roundtrip distance, as well as the difficulty level based on the type of terrain.

2. Correct Hiking attire

- ✓ Ensure that the attire or clothing choice matches the needs of the path, hike, or trial requirements as well as the time of year/ season. Items such as jeans are not usually the best choice because they may cause chafing. Loose or lightweight shorts or pants are most appropriate. Items such as long tights or leggings are usually a good choice for beginners, as well as long sleeve t-shirts to protect the body from branches scratching or other elements found in nature.



3. Footwear

- ✓ The correct type of footwear is important to prevent blistering or sore feet. Wear moisture-wicking socks and sneakers or hiking boots. Try not to wear brand new shoes because they may cause unwanted blistering or soreness.



4. Pack the essentials

- ✓ In the backpack, carrying kit, or hydration pack, carry items like a compass, map of the trails, calorie-dense snacks, poncho to protect from possible rain, a first aid kit, and plenty of water. Other useful items would be a safety whistle, flashlight with extra batteries, and fire starter/striker.



5. Prevent Dehydration

- ✓ Before going on a hike, hydrate well, and make sure to hydrate regularly during the hike itself. A safety tip would be to replace lost fluids by intaking a half-liter of water every hour during the activity.

6. Basic safety tips
 - ✓ Go on a hike prepared for something to go wrong. Being prepared is the best line of readiness. Share the link, name, or location of your hike with another person in your life in case something goes wrong or you get lost. Authorities will have a good idea of where to begin searching.
7. Pace Yourself
 - ✓ This activity isn't normally about speed; it is an endurance activity. The number of miles or speed doesn't define the level of success. Individuals pacing themselves for their own safety and enjoyment is highly important.
8. Respecting the environment
 - ✓ The ideal of *leaving no trace* is very important. Most hiking paths, treks, or trails go through nature, home to various plants and animals. By respecting their home it will allow for paths to continue to be open to the public, remain beautiful and as natural as possible. Remember you are visiting their home (Nicolson, 2018).



Reserve America is a widely used company that gives people quick access to all things outdoors such as camping, hiking, fishing, etc. In 2018 Reserve America compiled a list of "15 Best Hikes for Beginners":

1. Lassen Peak Trail, Lassen Volcanic National Park California, Round trip is 5 miles
2. North Vista Trail, Black Canyon Colorado, round trip 3 miles
3. Glacier Point Trail Hike, Yosemite Valley, California, only 1-mile round trip
4. Coastal Trail Hike, Cutler, Maine, under 3 miles round trip
5. Frozen Niagara Cave Hike, Mammoth Cave National Park, Kentucky, it is only ¼ mile or 400 meters
6. Templeton Trail Hike, Coconino National Forest, Arizona, which is a 7-mile hike round trip
7. Ewoldsen Trail Hike, Julia Pfeiffer Burn State Park, California, in the Big Sur area. It's a round trip of 5 miles
8. Wildcat Den Trail Hike, Wildcat Den State Park, Iowa, a 4-mile round trip hike
9. Rubicon Trail Hike, South Lake Tahoe, California, it's an 8-mile round-trip hike
10. Hoh River Trail Hike, Olympic National Park, Washington, which is about 6 miles round trip
11. Canyon Overlook Trail Hike, Zion National Park, Utah, its only 1 mile long
12. Fairy Falls trail Hike, Yellowstone National Park, Wyoming, round trip its 5 miles
13. Highline Trail Hike, Glacier National Park, Montana, nearly 8 miles round trip, exactly 7.6 miles
14. Base Loop Trail Hike, Devil Tower National Monument, Wyoming, only 1.3 miles in length
15. Billy Goat trail Hike, Potomac, Maryland, just under 8 miles round trip (Lindsay, 2018)

You can connect the enjoyment and exercise of hiking to military training. According to a formal Navy SEAL and Certified Strength and Conditioning Specialist (CSCS), the term is **rucking** which is a loose term



Image 1 Smith, 2021

for hiking. Rucking may include walking a path/trail with a backpack (known in the military as a rucksack) of 30-50 lbs (for adults) or swiftly moving over rugged terrain. It may be an easy-paced/hiking pace, a fast-paced walk, or a slow jog/rucking pace (Smith, 2021). In a different article from the same author, he expresses how there are different rules to rucking rather than hiking. Make sure your body is used to walking before rucking, if you do not have a formal

rucksack/backpack, start wearing a weighted vest. Always work on progressing, such as adding 5 to 10 pounds to the ruck or vest every few weeks. You must be running/jogging at a fast-paced shuffle speed before rucking. When a person adds weight to their vest or ruck, they must have good structure and strength in legs, hips, lower back, and upper body. To build this strength, do exercises such as deadlift, squats, lunges, etc. Rucking or training to ruck isn't a daily activity; suggested cycle is no more than twice per week. When training for longer rucks, defined by 12 or more miles, start by training for a half marathon. Always take care of your feet, do activities like walking in the sand barefoot, wear two pairs of socks to prevent rubbing, use fitted inserts in boots, and/or change socks when your feet get wet. Always have patience with yourself in the process of training. And lastly, know rucking sometimes "sucks." Overall remember rucking and running are synonymous (Smith, 2021).

Check on Understanding:

1. Hiking is only for experts (T/F)
2. What are the three benefit categories of hiking?
3. Rucking is for entry-level people and doesn't need training. (T/F)

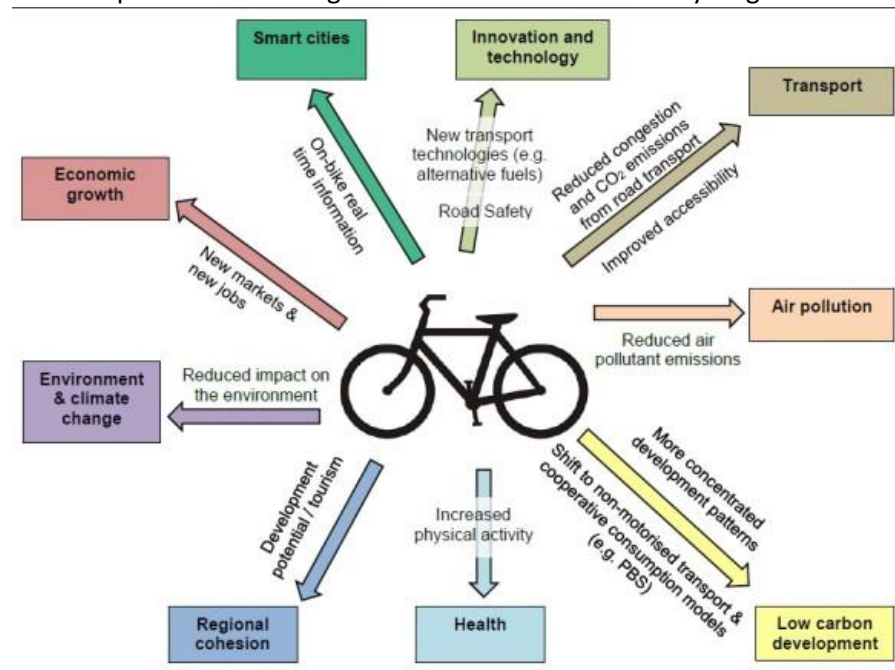
B5. Cycling

Cycling is an activity that can be considered a lifelong passion, fitness activity, or training exercise. It has many benefits, but it can be risky. The human body benefits greatly from cycling. As regular training or exercise it improves mental health and clears the mind by releasing endorphins. It has been known to strengthen the human immune system by improving the white blood cell activity and increasing the manufacturing of the body's vital proteins. It has been connected to weight loss because of the high-calorie burn exercise. It builds muscle and strengthens the body structure, causing the body to become leaner. Cycling promotes improved or far better lung health, but cyclists do get exposed to air pollution and dangerous fumes from vehicles. Cycling has been

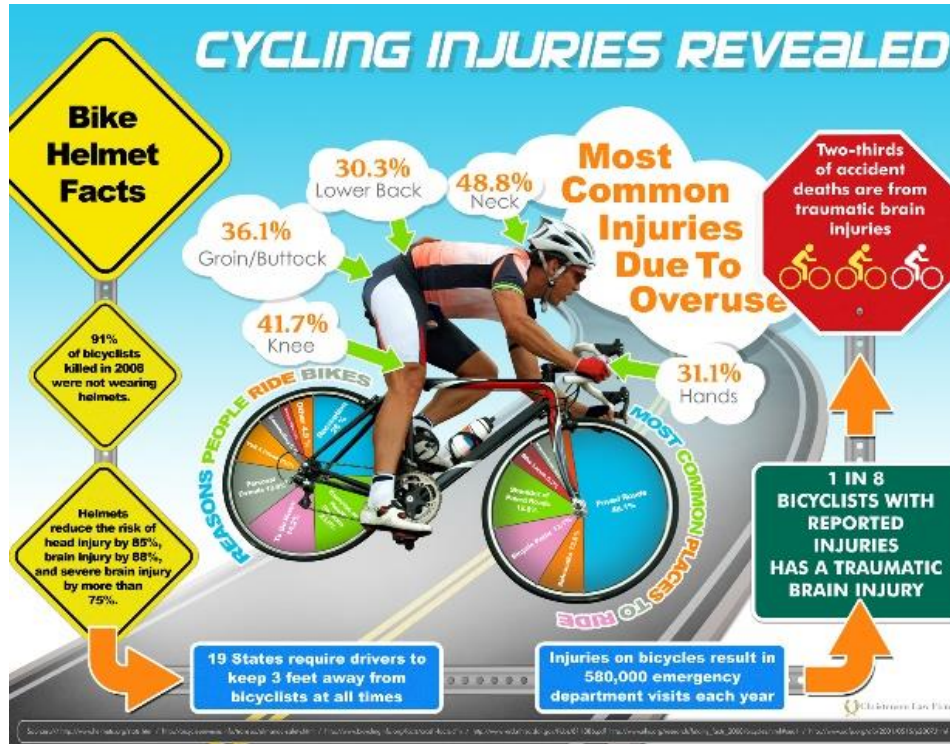


connected to lessening the risk of cancer and reduction of heart disease. One special benefit of cycling is that it is one of the few low-impact activities, as there is not much weight-bearing or hard strikes to direct joints. It can save a person time in a workout or if they do it on their way to and from work or school, etc. and even saves money if used as a major form of transportation around town. Cycling has been directly correlated to expanding on or helping

connected to lessening the risk of cancer and reduction of heart disease. One special benefit of cycling is that it is one of the few low-impact activities, as there is not much weight-bearing or hard strikes to direct joints. It can save a person time in a workout or if they do it on their way to and from work or school, etc. and even saves money if used as a major form of transportation around town. Cycling has been directly correlated to expanding on or helping



define orienteering and navigation skills, and improved **spatial awareness**. It can help a person have a better quality of sleep because of the exercise it gives the body. Cycling has been linked to increased brain function or brain health because of the increase of blood flow to the brain. It can help a person grow their personal social circle by finding or joining cycling groups and exercising together (Arthurs-Brennan, 2020).



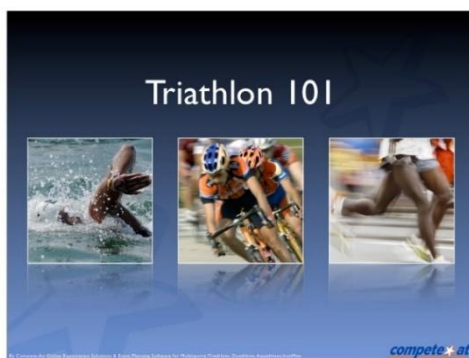
The risks must be considered. The first and foremost danger to a cyclist is the high risk of traumatic injuries. Injury rates and hospital admissions of cyclists have been increasing. Regardless of who is at fault for these type of accidents, the data shows cyclists have accounted for high percentages of hospital admissions: 13% of head injuries, 15% of torso injuries, 49% of extremity injuries, and 22% of

other body injuries in the united states from 1997 to 2013 (Fergus, 2019).

Check on Understanding:

1. Cycling is the safest exercise. (T/F)
2. Cycling has only a few benefits (Yes or No)
3. _____ significantly decrease the risk of death or head & brain injury

B6. Triathlon



Training for a triathlon is no easy task. **Triathlon** is defined as an endurance race consisting of swimming, cycling, and running (Garrett & Kirkendall, 2000). A very important thing to remember is not every triathlon offers the same distances in any category. There are different levels, spanning **Olympics races** “swim 0.93 miles (1.5K), bike 24.85 miles (40K), and run 6.2 miles (10K).”, **Ironman races** “2.4-mile swim (3.9K), 112-mile bike (180.2K), and 26.2-mile run (42.2K).”, **Half Ironman** “swim 1.2 miles (1.9K), bike 56 miles (90K), and run 13.1 miles (21.1K).” and **Sprint Races** “swim 1/2 mile (750 meters), bike for 12.4 miles

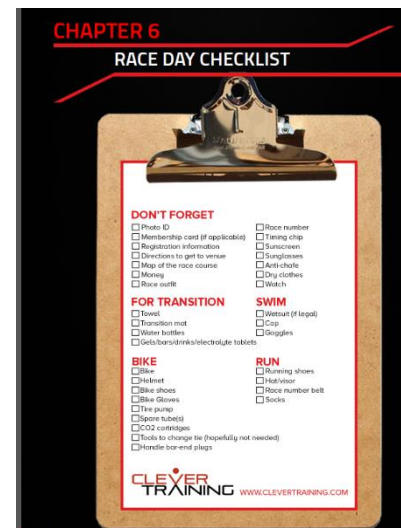
(20K), and run for 3.1 miles (5K)” (Lindberg,2021). Again, all the distances per event are different based on which type you train for.

Triathlon athletes must master freestyle/ front crawl swimming. A suggested training regimen for this segment of a triathlon is breaking up 1500 meters of swimming laps. This could be completed through various workouts but contains a warm-up of about 600 meters. The remaining 900 meters should include a mixture of pace racing to better the athlete's **personal record (PR)** and athlete's personal best recorded time, distance, pace, etc. **Pace racing** could be anything that is focusing on aerobic tempos (75% effort), easy speed (60% of effort or less), or just high tempos (95% effort), etc.

The cycling segment is very specific including a 30-minute warm-up, 30-minute pace you would be able to keep up for 112 miles, 30 minutes of about 70% effort, 30 minutes of a 95%-100% effort, with a 15 minute cool down.

The running component is about a 10k run or about 6.2 miles. Training for it would include 400m warm-up, 10 minutes of agility drills, and running drills, 800 meters of equal parts run and rest/walk, then 1600 meters (1 mile) of equal parts run and rest/walk repeated two more times 800, 1600) with a 4-minute rest, then finish the training cycle with 10 100-meter sprints every 30 seconds (Clever Training, 2015).

A **transition** is sometimes referred to as the **fourth component** of a triathlon. It is the switching between each individual sport component. The **first transition** is from the swimming segment into the cycling component, the **second transition** is from the cycling component to the running component. To be the most successful and efficient at each transition there are tips and tricks of the trade. Between swimming and cycling, a couple of things to remember is to remove goggles after you're already standing, start stripping down your wetsuit to free up the mobility of the shoulders for faster running, put on your helmet when you get to your bike, get your shoes on fast. The transition tip from cycling to running would be to dismount the bike after the dismount line, make sure to rack your bike, grab your number for the race, then run (Clever Training, 2015)!



Check on Understanding:

1. All triathlons are the same order, distance, and components (T/F)
2. What is the name of the longest triathlon?
3. Name the three components of a triathlon and the mystery fourth component.

B7. Competitive Sports / Fitness Activities

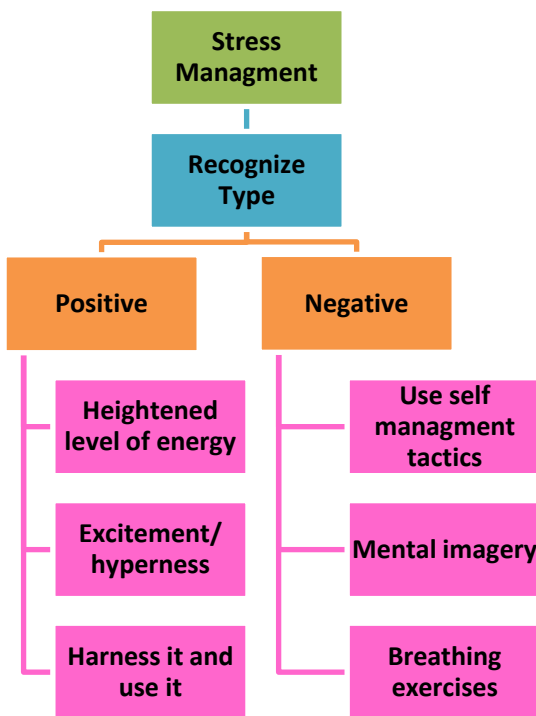
There are a variety of competitive sports or fitness activities an individual can participate in that aid in overall health and enjoyment for recreation. Competitive sports/fitness activities are formal team or individual sports that offer low to high level of competition through tournaments or competitive seasons. These may include sports like gymnastics, cheerleading, American Football,



soccer, volleyball, basketball, rugby, hockey, lacrosse, wrestling, weight lifting, track and field events, swimming, baseball, water polo, boxing, mixed martial arts (MMA), self-defense disciplines, and so many more.



It is commonly accepted that the ultimate competitive sports for the world stage are those that are showcased in the Olympic Games (summer or winter). Competitive sports played at lower levels can occasionally showcase a negative side of competition, such as parental overinvolvement in children’s little league games, yelling at coaches or referees, etc.



When an athlete involves themselves in competitive sport or competitive fitness activities there are a variety of elements that the athlete become responsible for. **Competitive stress** is defined as the body’s reaction to being involved in the need or desire to outperform or personally excel as a competitive team member or individual competitor. This element of competitive stress has a positive and negative application. The **positive application** can be that it gives the athlete a heightened level of energy or excitement to take on the challenge. The **negative application** is it can cause mental or physical ailments such as increased anxiety, upset stomach, nervousness, or abnormal breathing patterns. When competitive stress intrudes into an athlete’s day they must rely on **self-management** tactics by identifying the stress factor, avoiding it if possible, and using different stress reduction techniques. A good way to self-manage is actually to get experience in performing under various conditions, a type of

conditioning that allows the whole mind and body to compete at its top ability in front of loud crowds, large arenas, or public areas. Athletes may also use the sports psychology approach of applying mental imagery and performing breathing exercises. (Corbin, 2014).

Check on Understanding:

1. Define Competitive Sport /Competitive activity
2. Explain competitive stress including its two different applications
3. Competitive sports consist of very few approved sports (T/F)

B8. Yoga, Tai Chi, Pilates

Not all individuals are the type who want to train in team sports, competitive activities, or weightlifting fitness genres, but there are alternatives to still train at home in different yet challenging fitness activities. A popular type of exercise that focuses on stretching and flexibility is called **range of motion (ROM)**- the ability of the joints and muscles to work properly to the fullest extent of each joint-specific range), and isometric exercises. **Isometric exercises** are exercises where joints do not move but muscles still contract and exert force.



Yoga is a fitness activity that originated in India. It focuses on meditation and breathing control techniques, and is comprised of poses and various flexibility exercises. Yoga poses are called **asanas** or flexibility stances, or posturing. For the most part, most asanas are rather easy but some poses are riskier and must be completed with caution to prevent injury.



Tai Chi is an ancient Chinese exercise practice that focuses on flexibility to help prevent or aid in the relief of arthritis symptoms. It is considered a martial art in different levels and applications. It

has been credited with relieving back pain, improve **range of motion (ROM)**, and improving overall posture and balance.

Pilates was created and accredited to Joseph Pilates in recent years, and is considered a more modern fitness regime. It focuses on building muscle fitness (**muscular endurance**) and flexibility, with the byproduct of relieving back pain, improving posture, and improving overall daily movement functions.

These types of fitness practices have been proven to assist in injury recovery and overall flexibility. Portions of these exercises include the incorporation of **static stretching**, a type of stretching that is performed slowly to the point of pain but not past the point of pain (Corbin, 2014).

Beginning a fitness journey into any of these ROM activities is done by learning the guidelines and then creating an exercise or fitness plan. Flexibility exercise activity guidelines are usually as follows:

- Complete a warm-up
- Make flexibility target exercises part of the workout
- Match workouts to major muscle groups
- Start with static stretching.
- Gradually increase difficulty
- Steer clear of risky maneuvers
- Do not overstretch any possibly injured muscle or joint that is inflamed or hypermobile
- Stretching to the point of pain is not okay
- Stretches should not exceed 30 seconds if they will be followed by strength and power activities.



Building and developing an individual exercise plan must include key points to be successful. The following steps can help contribute to success in the execution of the plan example in figure 12.5 (Corbin, 2014, p.290) :

Figure 12.5 Elijah's written flexibility exercise plan.

Day	Exercise type	✓	Time, sets, reps
Mon.	Static Stretch Back-saver sit-and-reach Knee-to-chest Side stretch Sitting stretch Zipper Hip stretch Chest stretch Calf stretch		3:00 p.m. after daily jog One set of two repetitions for each exercise. Hold each exercise 15 seconds.
Tues.	Dynamic Movement Exercise Warm-Up High-knee march Standing flutter Quarter-turn cha-cha Shutter Grapevine Frankenstein Knee-high skip Jump-and-tuck Slow jog, fast sprint		1:00 p.m. before soccer Approximately 10 minutes. Perform each exercise five times, then continue on to the next exercise. Exercises followed by a slow jog for 30 seconds and a fast sprint for 10 seconds repeated three times.
Wed.	Static Stretch Back-saver sit-and-reach Knee-to-chest Side stretch Sitting stretch Zipper Hip stretch Chest stretch Calf stretch		3:00 p.m. after daily jog One set of two repetitions for each exercise. Hold each exercise 15 seconds.
Thurs.	Dynamic Movement Exercise Warm-Up High-knee march Standing flutter Quarter-turn cha-cha Shutter Grapevine Frankenstein Knee-high skip Jump-and-tuck Slow jog, fast sprint		1:00 p.m. before soccer Approximately 10 minutes. Perform each exercise five times, then continue on to the next exercise. Exercises followed by a slow jog for 30 seconds and a fast sprint for 10 seconds repeated three times.
Fri.	Static Stretch Back-saver sit-and-reach Knee-to-chest Side stretch Sitting stretch Zipper Hip stretch Chest stretch Calf stretch		3:00 p.m. after daily jog One set of two repetitions for each exercise. Hold each exercise 15 seconds.
Sat.	Yoga class		10:00-10:30 a.m. with sister
Sun.	None		None

1. Decide the main personal goal including elements of FITT
 - a. Frequency- when/ pattern
 - b. Intensity- the difficulty level
 - c. Time - how long
 - d. Type- exercises by name
2. Look into various options
 - a. Different exercises
 - b. Combination of multiple exercises

Static stretching, Yoga, Pilates, Tai Chi, Ballistic stretching exercises, etc.

3. Set the overall benchmarks or goals

What SMART goal will be met:

Ex: I will be able to complete a 5 exercise (jackknives, rolls ups, leg circles, sidekicks, and double leg stretch) circuits of Pilates at 85% difficulty without becoming fatigued, at time/repetitions of 30 second or 10 cycles of each exercise with only 10-second rest breaks.

4. Design the exercise program

a. Write it down

Ex: make it a checklist or goal tracker

b. Make sure to include variants/ mix it up.

5. Log it!

Make sure to keep a log to track and evaluate progress to adjust the plan as needed for difficulty progression (Corbin, 2014).

Check on Understanding:

1. _____ is an ancient Chinese fitness activity.
2. Yoga originated from what country?
3. A popular type of exercise that focuses on stretching and flexibility is called _____.

B9. Individual Activities

The concept of individual activities is simply rooted in the idea that they can be done in pairs or small groups, but are not contingent on any group setting. They are solo exercises or fitness sports. These can include outdoor or adventure sports as well but are not limited to leisure activities and non-mainstream sports. Some of the individual activities fall into more than one category but for the sake of simplicity, we put them into the most obvious option.

Boarding sports include seasonal or locational sports such as skateboarding, surfing, snowboarding, snow skiing, and now more recently added paddleboarding, skimboarding, and boogie boarding (Corbin,2014). A couple more options of individual sports that



can be done solo, but are contingent on another operating a vehicle, sometimes referred to as **watersports**, would be wakeboarding, kneeboarding, water skiing, and most recently added



wakeskating. **Roller sports** include but are not limited to variants of roller skating and roller blading like inline skating. **Cycling sports** are a sport that normally focusses mostly on mountain biking and BMX (bike motocross) cycling. **Aqua sports** are activities that include swimming but focus more on windsurfing, kayaking, canoeing, and rowing. Solo ball sports are sports and leisure activities that can be competitive such as golf, bowling, batting, and billiards, etc. (Corbin, 2014).

Equine Sports, a kind of **interspecies sports** are sports that rely on the use of a horse in executing the goal of the sport, and are completed in 3 main types, **English riding** (English saddle- no horn) **Western / Western Pleasure** (western saddle- with a horn) or **bareback** (nothing for the rider to sit in/on, just the back of the horse). Most English riding events are: polo, horse racing, vaulting, jumping, dressage, etc.



Most rodeo activities are completed in western saddles; some of these events are reining, roping, and cutting/sorting. All focus on the workability of the horse and rider in traditional working tasks from ranch work and cattle drives. More specific equine sports are sports like **barrel racing** and **pole bending** which are elements of **gymkhana** that showcases the athletic abilities of the horse and its rider directly. The horse is as much the athlete as the human giving, guiding, and commanding the actions of the horse. The rider uses every muscle to control anywhere between 850 lbs. to 1200lbs of a massive muscular mammal with a mind of its own, ensuring the athleticism and fitness element of the rider (Wood, 2016)

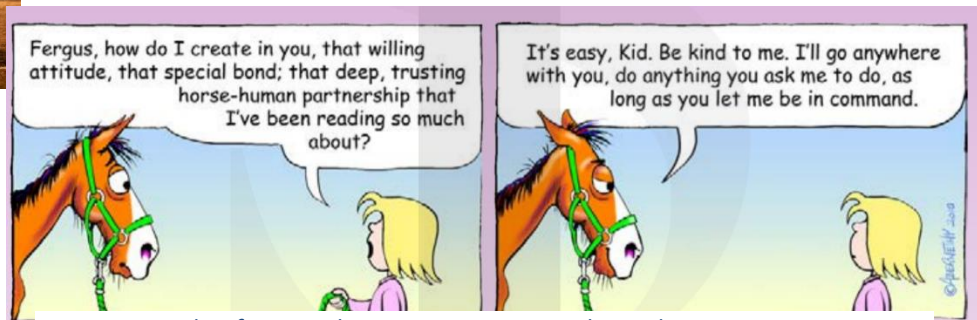


Image Copyright of Fergus the Horse Comic, Jean Abernethy

All or most of these previously listed and described sports are known to increase overall motor movement, improve balance, increase muscular endurance, aid in mental health improvement, spatial awareness, muscle memory, alertness, or increase reflexes in the environment they are performed in. Most of them are whole-body workouts using most or all muscles to execute actions while providing internal sports challenges.

It has been argued amongst Kinesiologists and the Sport Science community whether to include motorsports into a fitness activity or not. For the sake of distributing information, motorsports does fall into adventure sports and is a physical activity. **Motorsports** include dirt biking, MX (motocross), FMX (freestyle motocross), superbike racing, monster truck operator, and NASCAR racing, etc. According to a study out of Science and Sports Journal in 2019, superbike/ road-



racing motorcyclists are athletes and must have a certain level

of physical fitness to execute the needs and components within their sports. They scored high in fitness elements such as counter jump movements, lumbar strength, and handgrip strength, making them fall into the elite athlete category (Rodríguez-Pérez, 2019).



Check on Understanding:

1. All sports are absolute, and Sports Scientist or Kinesiologist communities agree on the determination of what is a sport (T/F)
2. Name one each of the boarding sports in land and water categories.
3. Sports that involve use of animals are called _____ sports.

B10.Video & Online Programs (P90x)

Video and online fitness and training programs are now readily available in this age of fast access to the internet. But it is important to evaluate the media/ videos and other internet materials to ensure that the resource is credible and has research behind it so that replicating the movements does not cause harm to the individual that is participating in the exercises. These video and online programs are available through some different fitness clubs and corporate gyms, and there are training videos for almost every training need available on YouTube, Google Videos and purchasable video subscriptions.

- When purchasing or using free resource videos or online programs for training it is important to assess the programming. It is vital to make sure to check the creator's credentials. Check whether the creator has fitness and wellness, kinesiology or physical training, and other applicable education or credentials to teach the material.
 - If it is a website, who developed it? Is it a government (**.gov**), organization (**.org**) or education (**.edu**) platform?
 - Note: **.com** normally associates itself to a company which is a for-profit product meaning that it is usually selling a product or service and not regulated the same as government, organizations or educational sites.
 - Online articles used for fitness training are regulated by the **US Federal Trade Commission (FTC)** to help prevent “fake news” about diets, dietary supplements, fitness plans, or fitness products, etc. Before using any of the products, you can cross-check the company’s name or item name on the FTC website to see if the FTC has red-flagged the product, plan, or company.
- Choose a video or program that includes warm-ups and cool-downs in each exercise segment as a way to minimize injuries.
- The program or video must use only safe exercises
- Ensure that the program or series of videos cycles through all muscle groupings and touches on all elements of fitness.
- Certify that the program or video is series matches the individual’s level of fitness, and not so far advanced that technique is lacking which may cause injuries.
- It is imperative that videos and online programs for fitness gradually advance the fitness levels for the individual to progress in their level of fitness expectations and encourage growth in health and fitness goals (Corbin, 2014).

P90X is a company's trademark fitness program. It was created by **Tony Horton**, and is available through online video and video game application. P90X is an at-home training program of 12 different rigorous exercises that focus on resistance and bodyweight training. The program is sold based on what packet the individual would like to purchase. P90X has been successfully used for years, but on BeachBody LLC's website that hosts P90X information from the creator's source, the website states: *product statements have not been appraised by the Food and Drug Administration (FDA), the website should be used for informational use only, etc.* (BeachBody LLC, 2021).



A **personal trainer** is a person who has earned a certification, and obtained competencies from an accredited school, university, or facility on how to develop safe fitness programs for a variety of people to assist them in acquiring their fitness goals. There is a process available to ensure someone is a certified Personal Trainer: you can verify personal trainers' certification at the National Academy of Sports Medicine (NASM) and National Federation of Professional Trainers (NFPT) websites.



Tony Horton does not hold a Personal Trainer Certification by a national standard and does not have accreditation of a school, university, or certified training facility with the authority to certify an individual to be a trainer. The programs may provide results, they may not be risky or harmful and done progressively but the creator is not professionally recognized as an accredited trainer.

Check on Understanding:

1. Define personal trainer.
2. List three suffix examples of trusted online material websites.
3. In assessing the credibility of workout programs and exercise videos, the author or creator's professional credentials are unimportant (T/F)

B11. Specialized Programs (CrossFit)

In the fitness training journey, there are many options to choose from. Fitness trends or fads have often taken the fitness world by storm. A **fitness fad** is a short-lived popular program that causes a craze of attraction, often based on gimmicks or ineffective protocols. A **fitness trend** is a more long-term repeatable fitness program that has the ability to change a person's mental approach to fitness (Rummel, 2015).



CrossFit is a lifestyle characterized by safe, effective exercise and sound nutrition. CrossFit claims to be usable to accomplish any goal, from improved health to weight loss to better performance. The program reaches out to everyone – people who are just starting out and people who have trained for years. CrossFit workouts are different every day and can be modified to help each athlete achieve their goals.

The workouts may be adapted for people at any age and level of fitness. The company has 14,000+ gyms around the world, and provides a support network that encourage and motivates each other as they work toward their goals.

CrossFit was founded and created by previous CEO Greg Glassmen, who was a budding teen gymnast.



CrossFit is global company whose product aims to improve all aspects of an individual's fitness. It combines safe and effective exercises with balanced nutrition and responsibility of community. The program asserts that it is effective in weight loss, health enhancement, and helping balance overall performance. It clearly states on their website that an individual can train in CrossFit with a certified trainer or one of their company affiliates. It's a program for anyone, from beginners to skilled athletes. The workouts vary daily and can be modified for all levels of fitness. The lifestyle of CrossFit gives dietary and nutritional guidelines, embracing the phrase "off the carb and off the couch." This program offers an expanding community which aids individuals in achieving their fitness goals through their workouts. This is effective because it lends accountability and training with health guidelines supported by the CrossFit community (CrossFit, 2021).



Check on Understanding:

1. Define the difference between a fitness fad and a fitness trend.
2. Is CrossFit a fad or a trend? Explain your answer.
3. List the 3 components of CrossFit.

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