

Health Course Study Guide

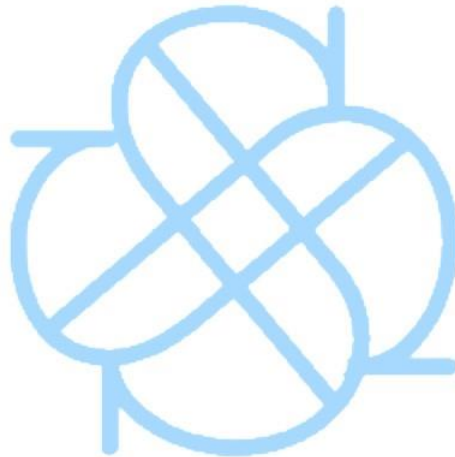
From Simple Studies, <https://simplestudies.edublogs.org> & @simplestudiesinc on Instagram

Introduction to a Healthy View of Yourself - Personality

- There are both internal and external influences that make up your personality:
 - Internal: inherent characteristics that you're born with
 - External: influences outside of yourself (Ex: how friends interact with you)
- Perspective: your point of view; how you see the world
 - Optimism: positive perspective
 - ❖ This can boost our mental health and actions
 - Pessimism: negative perspective
 - ❖ This can lead to giving up and feeling down for extended periods of time
- Self-esteem: An extent of how much you value and have confidence in yourself
 - People with high self-esteem are accepting of their strengths and weaknesses
 - ❖ they have resilience: overcoming obstacles in life
 - People with low self-esteem do not think they deserve much of what life has to offer
 - ❖ they can be at higher risk of taking drugs, hurting themselves, or being in unhealthy relationships
 - There are always ways to boost your self-esteem. These are a few of them:
 - ❖ Exercise
 - ❖ Not comparing yourself to other people
 - ❖ Try having an optimistic perspective
 - ❖ Have a good support system and friends
 - ❖ Help others

* Understanding your personality can...

- Boost self-esteem → helps you develop your strengths and learn to accept/build your weaknesses → this makes you a better person
- Allow you to communicate effectively with other people → leads to you being a part of healthy relationships
- Live a happier life



Stress

Stress: how your body responds to pressure (“pressure” can be a lot of things; can be as simple as getting homework done)

- Eustress: positive stress - helps us improve as individuals (Ex: working together with your classmates to get a group project done)
- Distress: negative stress - makes us less motivated to complete demanding tasks (Ex: staying in your room for days in dread after losing a job)
 - ❖ Distress effects: headaches, migraines, asthma, body aches, heart disease, stroke, anxiety disorder, insomnia, cold/flu, and more

*You can change your perspective on how you view stress. Despite this, it's best to use good coping strategies and eliminate distress altogether.

- General Adaptation Syndrome: how your body responds to stress
 - Stage 1: **Alarm**
 - ❖ You're in a surprised state → your body starts to prepare you for action
 - ❖ Adrenaline releases (“superhuman” hormone) (‘flight or fight’ response)
 - ❖ Hearing, vision, and overall senses get sharper
 - ❖ Blood pressure and heart rate increases
 - Stage 2: **Resistance**
 - ❖ Your body is trying to calm down afterwards
 - ❖ Hearing, vision, blood pressure, and heart rate slowly goes back to normal
 - Stage 3: **Exhaustion**
 - ❖ You enter this stage when you've been going back and forth from the alarm and resistance stages
 - ❖ This happens when stress level is really high and you don't spend enough time in the resistance stage
 - ❖ Your body starts to weaken/deteriorate
- Coping Mechanisms: defense strategies used against unpleasant emotions like grief

- **Positive Strategies**

- ❖ Listening to calming music
- ❖ Talking to a friend or family - they could give good advice or be good listeners
- ❖ Relaxing and meditating
- ❖ Expressing your feelings through writing
- ❖ Doing some art
- ❖ Exercising - endorphins, a type of hormone, is released to give positive feelings

- **Negative and Harmful Strategies**

- ❖ Turning to substance abuse
- ❖ Self-harming
- ❖ Denial: refusing to believe something's wrong
- ❖ Displacement: taking your feelings out on someone/something else
- ❖ Regression: acting immature and petulant
- ❖ Compensation: doing another thing (normally something you're good) in order to 'compensate' for your problems
- ❖ Suppression: ignoring your problems - different than denial because you know there is a problem; you're just choosing to act like it doesn't exist

Grief

Grief: Being sad due to a loss (Ex: family member died, dog ran away, etc.)

- Stages of Grieving Process: recovery progression from stress to normal functionality
 - Stage 1: **Denial** - refusing to acknowledge that something is wrong
 - Stage 2: **Anger**- knowing that something is wrong and being enraged because of it
 - Stage 3: **Bargaining** - making useless promises in attempt to change an outcome
 - Stage 4: **Depression** - this is different from the mental illness; in this case, it's where you face reality and experience sadness; however, if you're sad for an extended period of time, seek help from a family member/healthcare provider
 - Stage 5: **Acceptance** - you move forward with life and learn to cope with the loss

Mental Illnesses

Mental illnesses: illnesses affecting emotions, actions, and thoughts

Some of the Most Common Mental Illnesses

- **Mood Disorders**
 - Bipolar disorder: When a person's emotions continuously go to extreme highs (manic stages) to extreme lows (depressive stages)
 - Depression: Being upset for an extended time - enough to be considered not normal (prevents person from doing everyday, usual things); symptoms include: lack of energy, not doing things that person normally likes to do, eating or sleeping to an extreme extent (too little or too much)

*Suicide is taking one's own life intentionally. Most people who commit suicide have mood disorders. **Symptoms** include changes in eating and sleeping habits, not spending time in normally liked activities anymore, withdrawal from a support system of people, isolation, talking about death, and more. Talk to the person and let them know you care about them if you think they're suicidal. Guide them to a trusted adult.

- **Behavioral Disorders**

- Bulimia: Being obsessed with body image - person will start binge eating and then purge (forcefully vomit) afterwards (most people who have this illness are aware that there is something wrong but are unsure of how to address it or mention it to someone else)
- Anorexia: Being obsessed with body image - person may starve themselves and exercise more than what's healthy (most people who have this illness deny that there's something wrong)
- Obsessive compulsive disorder (OCD): Where someone has obsessive thoughts that result in them doing certain things compulsively (Ex: someone keeps thinking that a door is unlocked and continuously gets up to go check on it)
- Schizophrenia: where someone has hallucinations (sees, hears, senses things that are not there in real life)

*It's important to get the right help no matter what your or someone else's illness may be. Reach out to a trusted adult, counselor, or healthcare professional if you or someone you know has a mental illness.

Nutrition

The 6 Essential Nutrients

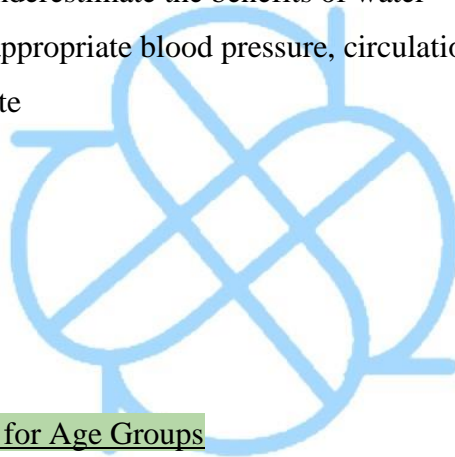
- **Carbohydrates**

- Broken down into glucose → source of energy
- Found in bread, rice, fruits, vegetables, cereal, etc.
- Excess amounts of broken down energy is converted into fat or stored in muscles

- **Fat (aka lipid)**

- Provides energy, insulation, and protection of organs within in the body
- Found in fish, meat, oils, nuts, etc.

- Body normally burns stored fat when carbohydrates don't produce enough energy
- **Proteins**
 - Builds muscles, skin, and tissue and helps circulate oxygen throughout the body
 - Found in meat, dairy, nuts, eggs, etc.
 - Body normally uses muscle protein when fat and carbohydrates don't have enough energy
- **Vitamins and Minerals**
 - Are essential for your body to normally function
 - There are many types of vitamins and minerals that sustain your body (Ex: vitamin D strengthens bones by helping to absorb calcium)
- **Water**
 - Many people underestimate the benefits of water
 - Helps with an appropriate blood pressure, circulation, temperature, digestion, and removal of waste



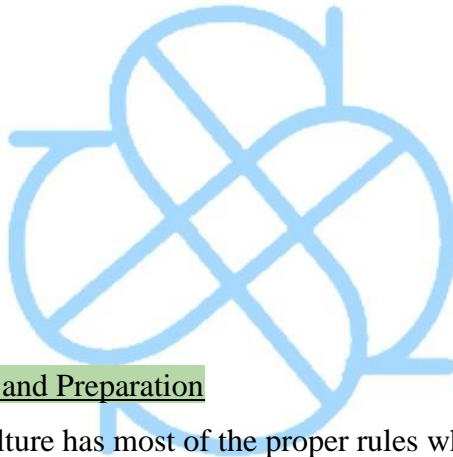
Nutritional Recommendations for Age Groups

- **Infants to Children**
 - Breast milk up to 6 months old → provides antibodies and illness prevention
 - Afterwards, solid food should be introduced
 - Afterwards, a more various assortment of foods should be introduced
- **Adolescents**
 - A higher calorie intake is recommended → more energy is needed because physical, mental, and hormonal changes are taking place
 - Calories: energy unit for food

*Excess calories are stored in fat

- Calcium and protein intakes are especially important for this age group

- Adults to aging adults
 - Calorie intake doesn't need to be as high anymore
 - Vitamins and minerals are important to sustain health - recommended amounts may stay the same as adolescents or even increase
 - Calcium and vitamin D also is important → helps strengthen bones and decrease risk for bones problems such as osteoporosis
 - Drinking water regularly every day is important → urge to drink isn't as strong the older you get

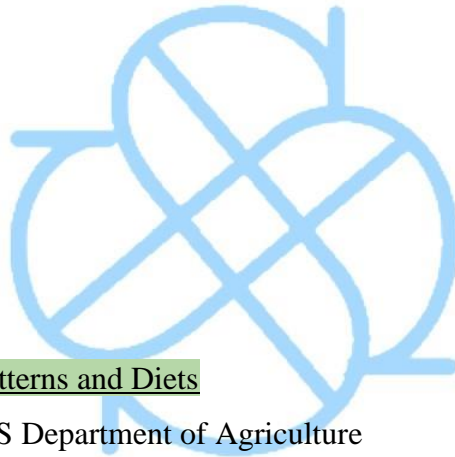


Safety Rules for Food Storage and Preparation

The US Department of Agriculture has most of the proper rules when handling and storing food; check their website for more information about this.

Some of the rules include:

- Regularly wash hands and surfaces that come in contact with food
- Don't buy foods past the expiration date
- Wash fruits and vegetables thoroughly before eating them
- Refrigerate foods when you get home after grocery shopping
- Regularly check your fridge to make sure the temperature is properly regulated and foods are still safe to eat
- Pick foods that need refrigeration last when grocery shopping so they have the least time sitting out



Difference Types of Eating Patterns and Diets

- **My Plate** - from the US Department of Agriculture
 - Very personalized (based on information you give about your weight, height, age, gender, etc.)
 - Avoids saturated fats and sodium but may have more carbohydrates and sugars that are recommended to be added to the diet
- **Vegetarianism** - little to no meat consumption. People can feel a sense of morality by choosing not to eat meat
- **Mediterranean** - includes foods from the Mediterranean like fish, oils, red wine, and foods from plants
 - Good for the heart
 - Foods can perish easily
 - Carbohydrates and sugars may be more recommended in this type of diet

- **Ketogenic**

- Low in carbs and high in fat and protein
- Helps reduce the risk of long-term diseases and illnesses
- Allows body to use ketones from fat for energy instead of glucose from sugar

Caloric Theory of Obesity: The more calories you eat than use, the more weight you'll gain

Endocrine Theory of Obesity: The type of food you eat and not just the amount of calories it has can cause you to gain weight (basically the caloric theory of obesity but with the type of food included in how it can affect the body)

Metabolism: Your body's chemical reaction and process of using and storing energy

- Hormone insulin is used to transfer glucose into cells from foods like carbohydrates.
 - Insulin resistance: when your body becomes less aware of the amount of insulin - can occur if you eat too many carbohydrates or sugars
 - ❖ Effects of insulin resistance include:
 - Obesity
 - Acne
 - Stroke
 - Hypertension (high blood pressure)
 - Atherosclerosis (stiffening in the arteries)
 - Osteoarthritis

- Heart problems → heart attack
 - Type 2 diabetes
 - Cancer
- ❖ You can prevent insulin resistance by eating fewer foods that use insulin (cutting down on sugar and carbs) and exercising regularly

Exercise

Types of Exercise

- **Aerobic (aka endurance)**
 - Very sustainable to do - you can do aerobic exercises for a longer time without getting exhausted
 - Heart rate and breathing increases when doing these exercises → helps respiratory and cardiovascular health (heart and lungs are benefited)
 - Benefits include: reduction of risk in several life-threatening diseases, lower blood pressure and blood sugar levels → less risk of diabetes, better circulation
 - Examples include: swimming, jogging, tennis, cycling
- **Strength**
 - Builds up your muscles and strengthens bones
 - Your muscles will tear and get stronger through the process of recovering
 - Exercises related to weight especially put pressure on the bones, which strengthens them → very beneficial for aging people
 - Benefits include: better posture, stronger bones, lower blood pressure

- Examples include: using resistance bands, doing squats, lifting weights, climbing up the stairs
- **Balance**
 - Focuses on distributing even weight to the body
 - Great for older people - helps maintain physical stability
 - Benefits include: increase in steadiness, decreased risk of falls, boost in mental health (in some circumstances like yoga and tai chi)
 - Examples include: Yoga, tai chi, heel-to-toe walking, standing on one foot
- **Flexibility (aka stretching)**
 - Involves stretching exercises aimed to strength out your muscles and tendons
 - Muscles shorten over time so stretching keeps the body lithe
 - Benefits include: ability to move and do everyday things, increased range of mobility, reduction in muscle pain, injury, or joint inflammations like arthritis

Maximum heart rate formula: $220 - \text{your age}$

Calculating your actual heart rate: $4 * \text{number of pulses counted in 15 seconds}$

Training zone: 65% - 80% of your maximum heart rate

Exercises you do should be within your training zone.

Warm Up and Cool Downs

Should last somewhere around 5 - 10 minutes.

- Warm ups are very important to prior a workout or exercise activity.
 - Do **dynamic stretches** or exercises like high knees, stretching, mountain climbers → get the heart rate up before exercising
- Cool downs are very important after a workout or exercise activity.

- Do static stretches or exercises like yoga, stretching, arm circles → gets the heart rate to slow down after exercising

*Always carry a water bottle and make sure to stay hydrated when exercising to avoid dehydration

Some Safety Questions Before Exercising

- Is the activity I'm doing something I can handle and in my range of ability?
- Is the area I'm exercising in safe? (are there a lot of people and would that be a good or bad thing, is the area cluttered with potential harmful objects, is the area well-lit, etc.)
- Do I have the adequate and appropriate equipment for this activity?
- Am I healthy enough to exercise? Have I talked to a healthcare provider to see if I can do this activity if I've had a previous illness or injury in the past?

*Changing nutritional or exercise habits should be a slow and progressive process. It's good to make sure to start off easy with slight amounts of differences and raise the intensity over time.

Finding Credible Sources for Health

Quackery: unsupported information that is not true

Red Flags - for sources that are not to be trusted

- A source is more commercial than informative and tries to sell/promote products
- Methods seem strange when you first read them
- The only thing supporting the information on the site is anecdotes and reviews from other people (ordinary people, celebrities, etc.)
- A method or piece of information claims to solve many types of problems at once (often times it's too good to be true)
- Something seems based on culture, religion, or is traditional and not updated
- Defensiveness when a point is attacked or criticized

Healthy Relationships

Traits of a Healthy Family

- Commitment
- Mutual respect
- Open and sincere communication

Healthy Friendships

- Encourages each person to be better people
- Mutual respect
- Good support system - makes each person feel stronger

Healthy Romantic Relationships

- Each person is responsible for his/her actions
- Open and sincere communication
- Trust - each person has the right to do other activities and hang out with other people
- Understanding standards and voicing them → avoids miscommunication
- Can agree to disagree
- Wants the other person to be happy

*Although these characteristics of family, friends, and romantic relationships slightly differ, they really apply to all of the categories.

Types of Parenting

- **Permissive**
 - Gives a lot of love; little to no expectations and rules
 - More of a friend than a parent - child usually takes advantage of that and there's no mutual respect or open communication
- **Authoritarian**
 - Gives little to no love; high expectations and strict rules with no reason behind it
 - No open and sincere communication → child will often sneak behind parent's back → no mutual respect
- **Neglectful**
 - Gives no love; no expectations
 - Form of child abuse → child does not grow up in a healthy environment
 - No commitment
- **Authoritative**
 - Ideal type of parenting style
 - Gives a lot of love; high expectations and reasonable rules
 - Parents listen to children and give them resources to achieve goals and grow

Harmful Types of People

- **People pleaser** - will do anything to get the approval of other people, doesn't have much of a voice
- **Enabler** - supports risky and harmful behaviors, bad influence and peer pressure
- **Clinger** - depends on others, low self-esteem, can be draining on friends
- **Fixer** - sacrifices themselves to fix others' problems, even if they didn't ask for it
- **Distancer** - will isolate themselves and have brief relationships with people - has been hurt before and lost trust
- **Controller** - possessive and wants control over someone → can lead to abusiveness
- **Abuser** - wants power and will be violent in order to have it
 - Domestic Violence Cycle: honeymoon (abuser apologizes/makes promises) → tension-building stage (disagreements lead to threats) → violent-episode stage (abuser tries to take control and may get violent)
- **Center** - wants the limelight, not considerate, compares themselves to others all the time
- **Liar** - lies about things to get desired responses out of people → manipulation
- **Promise breaker** - little commitment, will plan to do something but bail out if something "better" occurs, doesn't keep to his/her word

Communication is essential in order to have a healthy relationship.

Effective Communication Skills

- **Body language**

- Communication is actually mainly nonverbal
- Pay attention to how you present yourself - be conscious of your body language
- Gestures, facial expressions, and posture are huge components of body language
- Communication via technology (texting, phone calls, etc.) may cause more misunderstandings

- **Active Listening**

- Listen to understand; put yourself in that person's shoes and don't think about your opinion
- Don't interrupt and maintain eye contact
- Pay attention to the other person's body language
- Ask questions to clarify things; encourage the other person to speak more - show your interest

- **Being Assertive**

- Say things clearly, directly, and respectfully - simple does the trick
- Be responsible for what you say (say "I" statements instead of "you" statements)

- **Conflict Resolution**

- Overall, be respectful and assert yourself appropriately
- Don't make assumptions and accuse/blame the other person if there's conflict
- Focus on issues at the moment and don't bring up bad past experiences
- Be open and sincere
- Find a common ground to relate with the other person

Personal Health

- **Sleep**

- Teens need about 9 hours of sleep every night
- Adults need about 6-8 hours of sleep
- Good sleeping habits: form a solid sleeping schedule/pattern, exercise every day, limit screen time and caffeine intake - especially during the night
- Not enough sleep have these effects: immune deficiency, tiredness/lack of focus and memory during the day, increased irritability → can potentially damage relationships

- **Hygiene**

- Hygiene: sustaining health, especially through being clean
- Good hygiene habits: shower on a regular basis and dry off thoroughly after, wash clothing, bed sheets, towels regularly, frequently wash hands, brush teeth twice and floss once daily

- **Posture**

- Posture: how you hold your body when sitting, standing, or doing similar things
- Good posture habits: have straight back with shoulders back, tilt your wrists forward slightly when typing
- This helps properly align your bones → less risk for chronic diseases in the future

- **Ergonomic**

- Ergonomics: how you arrange and form your surroundings to make work easier and safer
- This ties in with posture - if you have good ergonomics in your workspace, your posture can be benefited.
- Ex: placing your computer above your eye level so you don't have to turn your neck down to see the screen

Diseases

Communicable disease: an illness that can be transferred onto another person through physical things like air, touching, surfaces, etc.

*All communicable diseases are initiated by pathogens

Pathogens: microorganisms that cause disease

Pathogen Types

- **Bacteria**

- Are single-celled beings that can be both good and harmful
- Most can be treated by taking antibiotics
- Ex: strep throat, tuberculosis

- **Virus**

- Are Smaller than bacteria
- Made of particles that cause disease and coated in protein
- Most can be treated by taking antiviral medications
- Ex: HPV, the flu

- **Protist**

- Are Bigger than bacteria
- Some can invade the body
- Can be treated by having good hygiene - prevention in the first place
- Some small parasites can be considered protists
- Ex: malaria

- **Fungi**

- Grow by using nutrients from other beings, living or dead
- Can be both harmful or harmless
- Ex: mushrooms, athlete's foot
- Most can be treated by taking antifungal medications

- **Parasites**

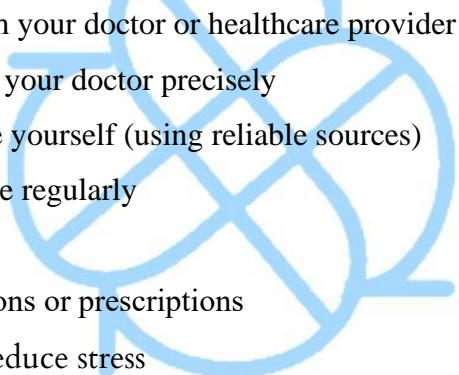
- Feed on living things
- Treatment for parasites depend on the type
- Ex: lice

Noncommunicable disease: an illness that can't be transferred onto another person through physical things like air, touching, surfaces, etc.

Types of noncommunicable diseases

- **Hereditary disease**: an illness that you're born with - from abnormal or flawed genes inherited from a parent
- **Immune disorder**: a condition where the body can respond harmfully to something harmless (Ex: allergies)
- **Behavioral noncommunicable disease**: an illness that is a product of your actions and environment (Ex: Diabetes type 2)

Treating or Coping with Communicable or Noncommunicable Diseases (varies depending on disease though)

- Communicate well with your doctor or healthcare provider
 - Follow directions from your doctor precisely
 - Learn about the disease yourself (using reliable sources)
 - Eat healthy and exercise regularly
 - Drink water
 - Don't misuse medications or prescriptions
 - Get enough sleep → reduce stress
- 

Drugs

Drug: Any substance that changes the body physiologically when taken in the body (drugs are also called intoxicants)

Types of Drugs

- **Stimulant** - makes you feel more hyper, increases heart rate and brain functions
 - Ex: caffeine, meth, cocaine
- **Depressant** - makes you feel drowsy, decreases breathing, reflexes, and brain functions
 - Ex: alcohol, some cough medicines, heroin
- **Hallucinogen** - makes you hallucinate and sense things differently
 - Ex: marijuana, ecstasy, psilocybin

Neuron: a cell in your brain that sends messages through your body

Synapse: a gap between neurons

Neurotransmitter: chemicals that hop from one neuron to another across the synapse to deliver message to different areas of the body

*Drugs interfere with the production and functionality of neurotransmitters, which affects our thinking process and behavior. Some neurotransmitters like dopamine affect pleasure levels, so people may feel happy when they take drugs. The more you take, the more you will need in the long run.

Habituation: drug tolerance → makes you take more of the drug to reach the same level of pleasure

Addiction: an illness that makes you reliant on drugs - taking them becomes a habit and you can't control yourself

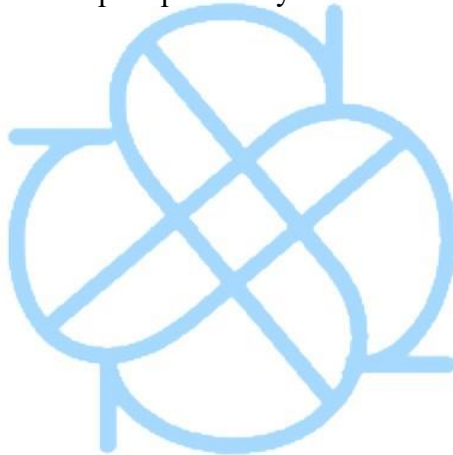
Withdrawal: attempt to stop using a drug → is very hard and may be irritating physically and mentally

Why Do People Do Drugs?

- Advertisements and media promoting drugs (this can include popular songs or TV shows)
- Family - if parents take drugs, children may think it's acceptable and ok
- Rebellion or impression - people want to be "cool" and come off as impressive
- Peer pressure: influence from friends or people close to you to do something you wouldn't normally do
- Person has low self-esteem or depression - they feel like drugs is the only way to cope

How to Stand Against Peer Pressure for Drugs

- Suggest to do something else (go for a walk, play tennis, etc.) - you can do so many more things in replacement of taking drugs
- Be assertive and respectfully refuse the offer or pressure
- Walk away
- Make good friends who won't peer pressure you into something that is wrong



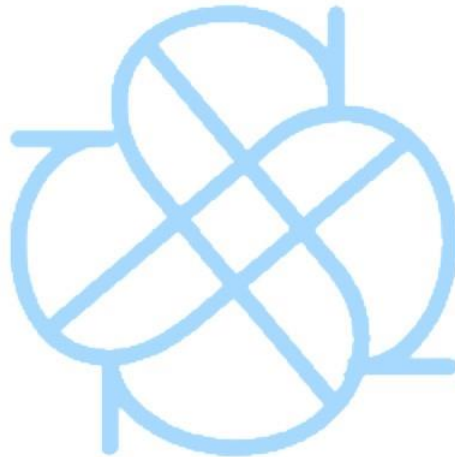
Injuries

- **Acute injury** – from twisting limbs, falling, or collisions → sprains, strains, bruises, bone fracture

- Sprain: torn ligament - ligament connects bones together
- Strain: torn muscle or tendon - tendon connects muscle to bone
- **Overuse injury** - from overworking a body part without proper recovery → stress fractures, soreness, bone/muscle/ligament/tendon damage
- **Catastrophic injury** - from hard collisions or falls → brain damage, broken back/neck

How to Prevent Injuries

- Take proper time to relax and recovery from exercising - take breaks during exercise too
- Exercise more in the flexibility category - will improve range of motion
- Make sure equipment, environment, and technique is safe when exercising (for more info on safety exercise precautions, look at the safety questions on pg. 9)



Emergencies

- **Falls**
 - Call 911 if a fall is really serious
 - Prevention tips: declutter areas in your house, make sure good lighting is available, clean spills on the floor thoroughly

- **Burns**

- First degree: epidermis turns red, and swells
- Second degree: burn makes it to dermis - looks blotchy and red or white
- Third degree: burn may make it to muscle/bones - looks blackened
- If serious like a third degree burn, call for help and dial 911, check the person's breathing, and put a cloth over the burn
- Treatment if not as serious: run the burn over cool water, make sure to not pop blisters if there are any

- **Fires**

- What to do: get out of the building, get low to the ground to avoid breathing in fumes, try to get out of the vicinity if possible, call 911, roll on the floor if clothes catch on fire

- **Floods**

- What to do: don't walk to drive into floods, move to higher leveled ground, if you were away from home, wait until authorities have given the go ahead before returning home

- **Earthquakes**

- What to do if you're in a building: hold onto something sturdy, cover head and neck, drop to the ground, stay away from windows and things in the ceiling that could fall on you
- What to do if you're outside: go away from utility wires, buildings, streetlights, trees, drop/cover/hold on