SCW Personal Training Certification

- Presented by

Welcome

SCW Fitness Education is a nationally recognized and accredited certification organization that has trained over 10,000 Fitness Professionals. Our certifications are recognized by fitness facilities across the USA and Internationally.

The SCW Fitness Education Certifications are both general and specialty in orientation and span from Group Ex, PT, Aqua, Yoga, Barre, Pilates, Sports Nutrition, Weight Management, Kettle Weights and more.

Each course is developed and lead by qualified, veteran trainers that have 20+ years of fitness experience. Theory, practice, and application combine to credential our SCW professionals and prepare them for quality instruction at large, small and specialty facilities.

Manual

- Access to your manual:
  - Email (check spam/junk folder)
  - Handout
  - Retain Link ($35 Replacement Fee)

Exam

- Access to Exam
  - Handout / Email (Check spam/junk folders)
- 2 Attempts to Pass
- Stopping & Re-Starting permitted
- No Time Limit on Exam
- Must take exam within 2 weeks of Course
- 70% Required to Pass
- Create a log-in and password to access exam, results, and certificate

CEC's & Certificates

- SCW, ACSM & AEA CECs are earned by attending this course.
- After you finish your exam and pass with an 70% or higher score, you will be automatically pushed to a landing page and your link to your Certificate of Completion (which includes your CECs) appears in the middle of the page. Click this link and SAVE THE CERTIFICATE.
- Replacement Forms are available for $35.

SCW Certification Renewal & CECs Providers

- You must renew your SCW Certification every 2 years by attending a MANIA®, taking an SCW Online Certification, or SCW Online Course. SCW currently accepts credits from the following outside providers. Other courses may be petitioned for a $25 fee.

Host a Certification

- Bring a Certification to Your Facility
  - Convenient
  - Affordable
  - Reliable. Respected. Recognized.

- www.scwfit.com/hostsite

Workshop Goal

- SCW's Personal Trainer certificate instructs essential and foundational skills necessary for success in the art personal training.
  - Addresses fundamental concepts in exercise science
  - Instructs components to effective training
  - Teaches valuable tools and techniques in communication, assessment, programming and exercise instruction

Workshop Learning Objectives

- Explain key physiological, anatomical and kinesiological concepts applicable to training individuals
- Develop rapport with clients utilizing effective communication skills
- Screen individuals for risks to participation in exercise
- Discuss importance of physiological assessments
- Conduct basic tests of flexibility, body composition, and aerobic fitness
- Design and implement appropriate exercise programs to improve aerobic fitness, muscle fitness, flexibility and weight management, specific to an individual
- Demonstrate and instruct a variety of traditional and functional upper and lower-extremity exercises

Module I- Introduction

Scope of Practice

- A scope of practice defines the legal range of services a professional can provide in a given field, and the setting where those services can be provided. The regulations and laws may vary from state to state but scope of practice is generally determined by education, training, and certifications of the professional. The following information will help educate on a personal trainer's scope of practice.

Client Privacy

- Trainer-client relationships do not have the same legal requirements of confidentiality as a physician or psychologist, but personal trainers should maintain the client's health history and private information with the same level of security

Client Safety

- Personal trainers should do everything possible to minimize risk for clients, this includes…
  - Cleanliness
  - Properly maintained equipment
  - Client specific risk management according to health history, physician guidance, and appropriate training level

Professional Responsibility

Do NOT	Do (within scope of practice)
Diagnose	• Screen for exercise limitations and potential risk factors • Apply guidelines received from physician/therapist/dietician diagnosis
Prescribe	• Design exercise programs and give general nutrition advice • Refer clients to appropriate health professional for specific diet plan and supplements
Treat Injury / Disease	• Use exercise to improve health based off physician advice • Refer clients to appropriate health professional for injury treatment
Rehabilitate	• Improve physical fitness and provide guidance after rehabilitation has been completed
Counsel	• Coach physical fitness • Provide appropriate education • Refer clients to appropriate health professional for counseling

Networks and Referrals

- It is important for personal trainers to know their professional boundaries and to refer to the appropriate healthcare professionals when it falls outside their scope of practice.
  - e.g., a client complains of back pain and after performing strengthening and mobility work for the affected area there is no improvement. You may want to refer them to a chiropractor.
- When building a referral network, you should identify other professionals who are properly licensed and can uphold the same reputation of your own services to a client. If you network properly, you may also be able to gain referrals from other health professionals.

Potential Referral Sources

- Massage Therapist
- Licensed Physician
- Licensed Therapist
- Chiropractor
- Dietician

Career Development: Continuing Education

- SCW Personal Trainers should select their continuing education based on…
  - Interest
  - Clientele they want to train
  - Alignment with the desired career path

- Specialization can help a trainer become recognized as an expert for a particular clientele or type of training

Career Development: Expanding Resume

- Additional Fitness Certifications
  - Earn continuing education credits and experience through additional certifications
  - i.e., add Nutrition Coaching Certification
- Advanced Degrees
  - Having a degree in a health-related field is not a requirement for SCW Fitness Personal Trainers, but it can help with advancing your career, especially for advanced positions such as management or teaching

Module II – Foundations to Exercise Sciences

Exercise Physiology

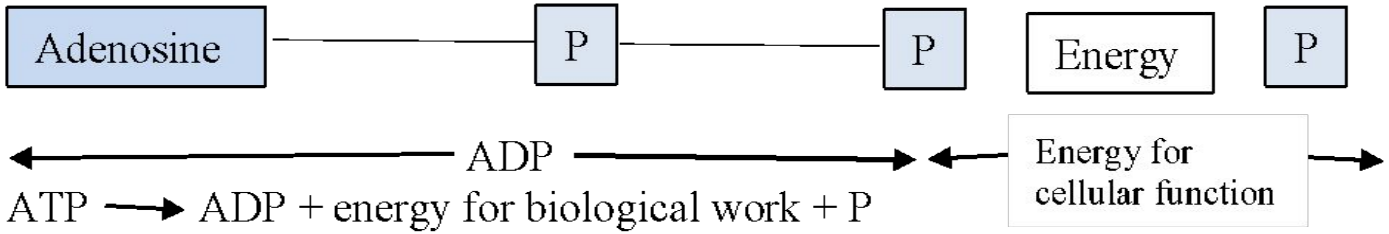
- Adenosine Triphosphate (ATP) is considered the body's energy currency
  - ATP is a high-energy compound stored in our cells and is the source of all energy used at rest and during exercise
  - ATP consists of a molecule of Adenine (a protein) and Ribose (a sugar) - forms Adenosine, linked to three phosphate molecules
  - Two outermost phosphate bonds are high-energy bonds containing the stored energy within ATP
  - Work is possible by splitting the outermost high-energy bond from ATP, releasing 7.3 kcal of energy (does not require oxygen)
  - At rest, the body expends approximately 1.0 - 1.3 kcal/min (only ~ 20% used by skeletal muscle) whereas during heavy exercise the body can expend 20 - 25 kcal/min (~ 80% used by skeletal muscle)

Exercise Physiology: ATP

Figure 1: A molecule of ATP

Note: ——— is an energy bond; P = Phosphate group

Figure 2: Energy Release from Splitting ATP



The Two Energy Pathways

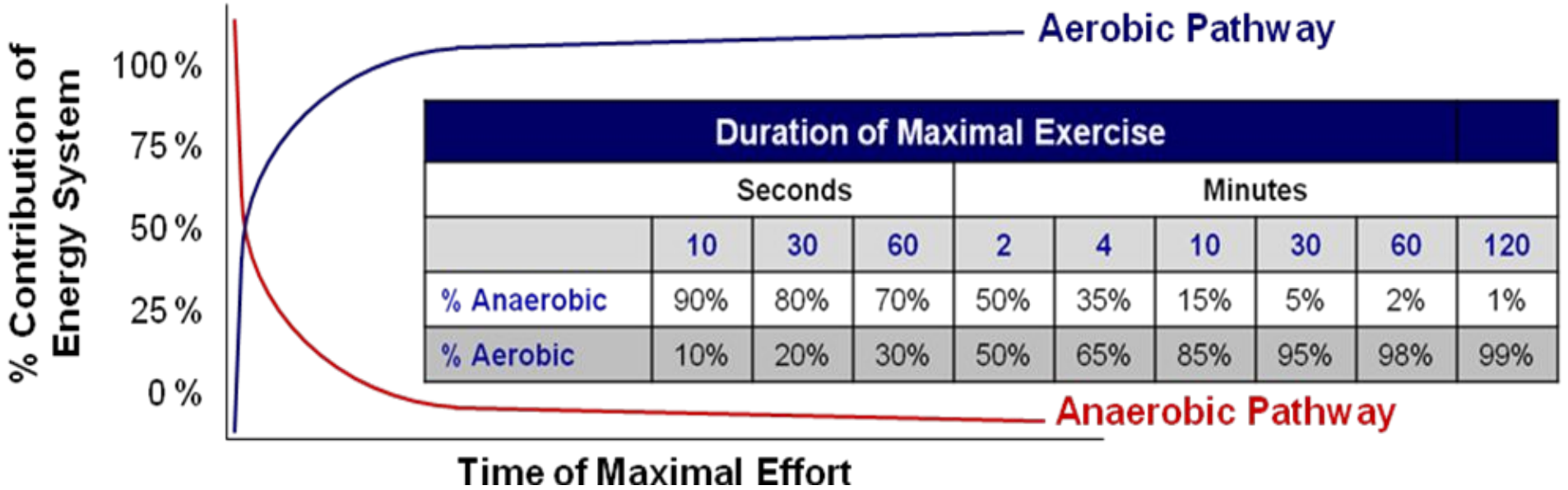
Body contains two energy pathways: Aerobic and Anaerobic.

- Aerobic (oxidative) pathway contributes most significantly to our energy needs; requires oxygen, generates energy at slower rates, and can use carbohydrates, fats and proteins as a fuel.
- Anaerobic pathways provide limited, more rapid energy; use ONLY carbohydrates as a fuel and provides energy when:
  - Additional energy is needed when intensities exceed the capacity of the aerobic pathway.
  - Immediate energy is needed during any change in activity or exercise intensity.

Anaerobic Pathways

- Within the anaerobic pathways:
  - ATP-PCr system (phosphagen system) represents the body's most immediate system, but also generates the least amount of energy (~10 seconds of all-out effort)
  - Glycolytic (anaerobic glycolysis) system takes over as the phosphagen system depletes, but generates a larger amount of energy

Anaerobic vs Aerobic Pathways



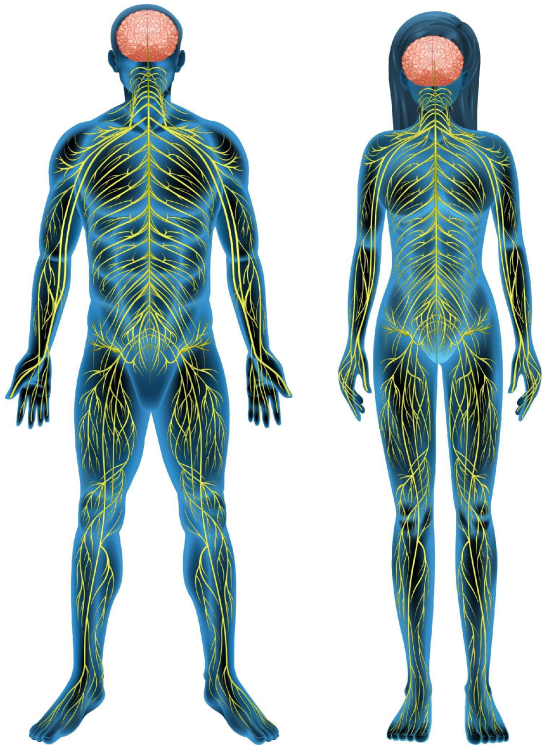
Duration of Maximal Exercise									
	Seconds			Minutes					
	10	30	60	2	4	10	30	60	120
% Anaerobic	90%	80%	70%	50%	35%	15%	5%	2%	1%
% Aerobic	10%	20%	30%	50%	65%	85%	95%	98%	99%

Energy Systems

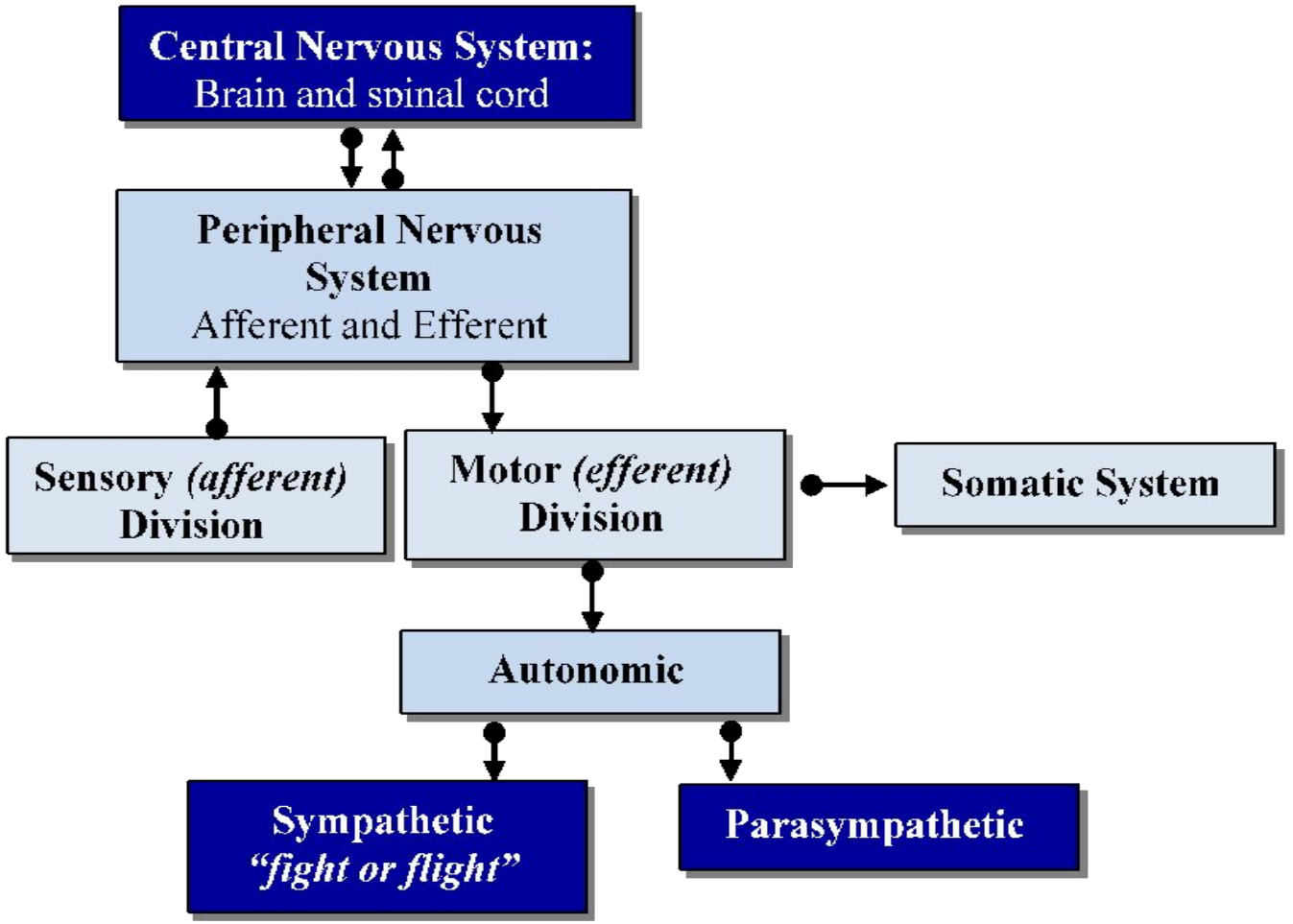
Duration of Event	Event Intensity	Primary Energy System
0 - 6 seconds	Extremely High	Phosphagen
6 - 30 seconds	Very High	Phosphagen and Anaerobic Glycolytic
30 - 120 seconds	High	Anaerobic Glycolytic
2 - 3 minutes	Moderate	Anaerobic Glycolytic and Oxidative
> 3 minutes	Lower	Oxidative

The Nervous System

- Central Nervous System (CNS) consists of the brain and the spinal cord.
- Peripheral Nervous System (PNS) consists of the sensory (afferent) division and the motor (efferent) division.
  - The afferent (sensory) division relays information towards the CNS.
  - The efferent (motor) division relays information from the CNS.
    - This division is further subdivided into the Autonomic (non-voluntary) and Somatic (voluntary) systems



The Nervous System



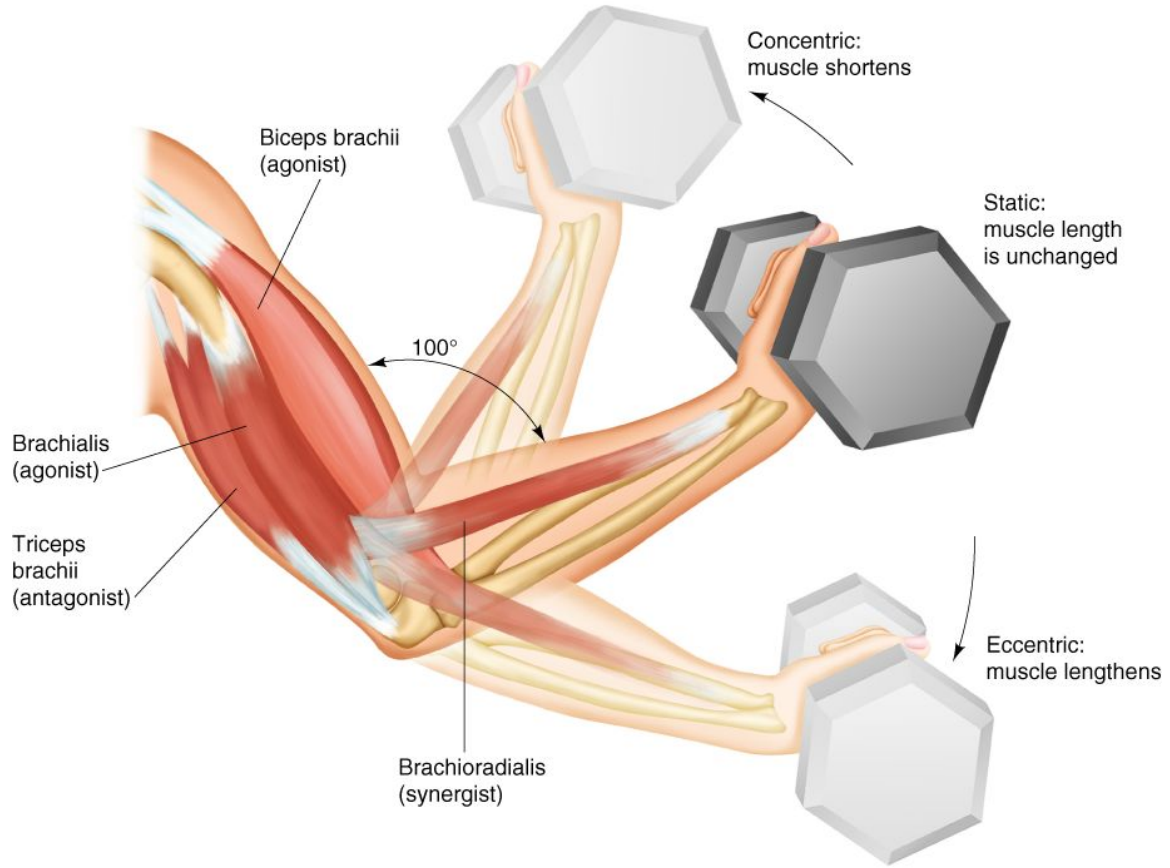
Neutral Adaptations to Training

- While muscles generate force and produce movement, it is the nerves (or neurons - individual nerve fibers) that attach to muscle fibers within a large muscle or to groups of muscles, that communicate the need for muscle action.
  - When starting a resistance training program, a new exerciser will demonstrate some rapid, initial gains made over the first 2 weeks that are not attributed to muscle growth (usually does not occur until weeks 4 – 6)
  - These initial strength gains are attributed to improvements in neural patterns and muscle fiber recruitment where the muscle fire in a more coordinated fashion to generate greater amounts of force

Muscle Actions

- Concentric (positive) contractions - the muscle fibers shorten (performing a biceps curl)
- Eccentric (negative) contractions - the muscle fibers lengthen (lowering phase of the biceps curl)
  - Greatest amounts of force are generated – use to build muscle size or strength
  - Greatest amount of micro-tearing occurs within the muscle (provides stimulus for muscle growth)
  - Onset of muscle soreness (DOMS – delayed onset of muscle soreness) that follows 12-72 hours post-exercise
    - Experienced most frequently with novice exercisers
    - Healing from DOMS - effective cool downs/stretching, re-training same muscles very lightly
- Isometric contractions (Isokinetic?)

Muscle Actions



Muscle Fiber Composition

- Muscles also demonstrate different physiological properties based upon their fiber composition. Three basic fibers exist within the human body:
  - Type I (also known as slow twitch) muscle fibers generate lower amounts of force, but do so for longer periods of time (synonymous with muscle endurance)
  - Type IIx or II b (also known as fast twitch) fibers generate larger amounts of force, but do so for shorter periods of time - fatigue more rapidly (synonymous with muscle strength and power)
  - Type IIa are intermediate fibers with properties of both type I and type IIb fibers.

Muscle Fibers

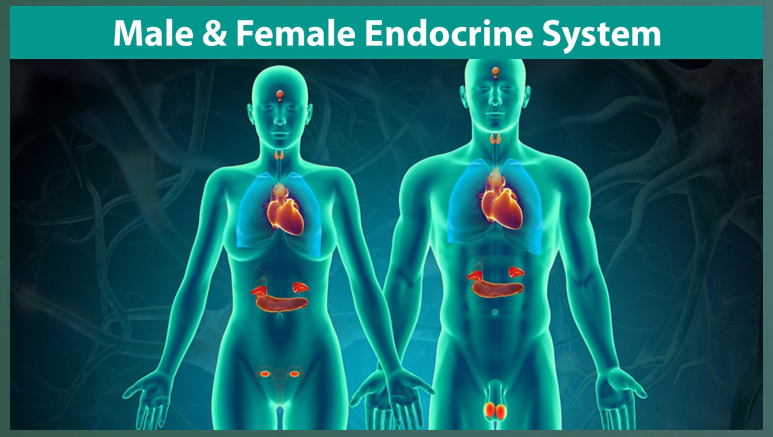
Characteristic	Type I (slow twitch)	Type IIa (intermediate)	Type IIx / IIb (fast twitch)
Force Production	Low	Moderate	High
Anaerobic Capacity	Low	Moderate	High
Aerobic Capacity	High	Moderate	Low
Fatigue Resistibility	High	Moderate	Low
Ideal Training Style	Endurance & Hypertrophy	Hypertrophy & Strength	Strength & Power

- On average muscles generally contain 50 % type I fibers, 25 % type IIa and 25 % type IIb fibers
  - Cardio, endurance and hypertrophy training can increase the concentrations of type I and type IIa fibers
  - Explosive power-type training can increase the concentration of type IIb fibers.

The Endocrine System

- Three components comprise the endocrine system:
  - Host glands: Tissues or glands that manufacture, store and release hormones directly into blood
  - Hormones: Chemical messengers released from one area of the body and transported elsewhere within the body (single or multiple target cells) to exert their effect.
  - Target cells: Specific region or regions (cells) where the hormone action is executed.

The Endocrine System



- Hormones control all essential reactions that strive to maintain our constant internal environment:
  - Changing external factors (e.g., temperature change)
  - External influences (e.g., sugar entering the blood)
  - External stimuli (e.g., exercise, muscle overload)

The Role of Hormones

- At the beginning of exercise and during sustained exercise, several different hormones perform critical functions to prepare the body for the stress of exercise as well as sustain the body's ability to continue exercising.

Key Functions of Exercising Hormones

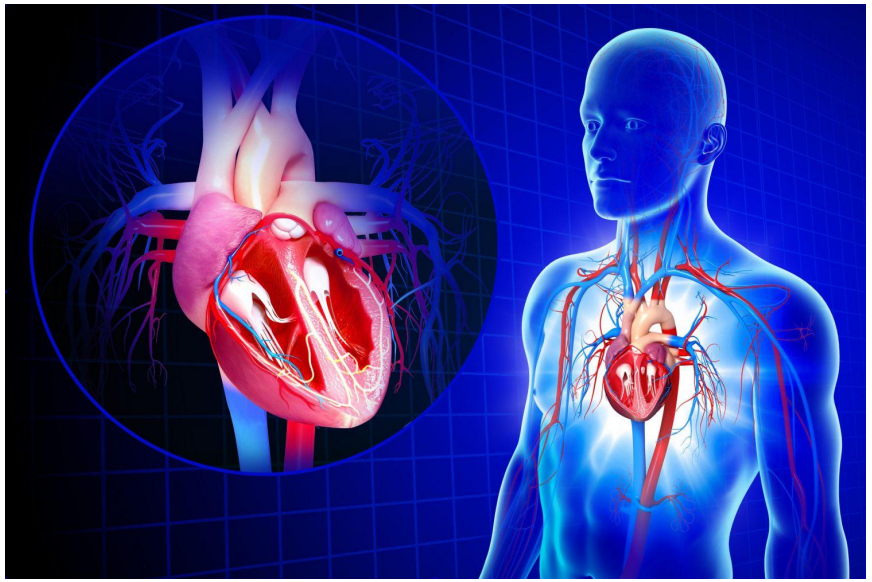
- Mobilizing fats from fat cells to use for energy
- Breaking down stored glucose in the liver and muscle cells to utilize as fuel
- Increasing blood distribution to the exercising muscles (vasodilation in exercising regions, vasoconstriction in non-exercising regions)
- Increasing heart rate, heart contractility and blood pressure
- Dilating the airways to increase airflow into the lungs
- Sweating to help eliminate heat from the body
- Preserving body water and electrolytes lost to sweating

Cardiopulmonary Physiology

- Roles of the cardiopulmonary systems:
  - Ventilation (movement of air into and out of the body)
  - Delivery (oxygen and nutrients)
  - Removal (carbon dioxide and waste products)
  - Transport (hormones, heat)
  - Maintenance (acid-base balance – pH and fluid balance)
  - Prevention (immune function against disease and infection)

Cardiovascular System: Heart

- The heart (pump)
  - One way flow-system with 4 chambers (2 atria/ 2 ventricles)
  - Blood flows into the atria, then in the ventricles before being ejected back into circulation.



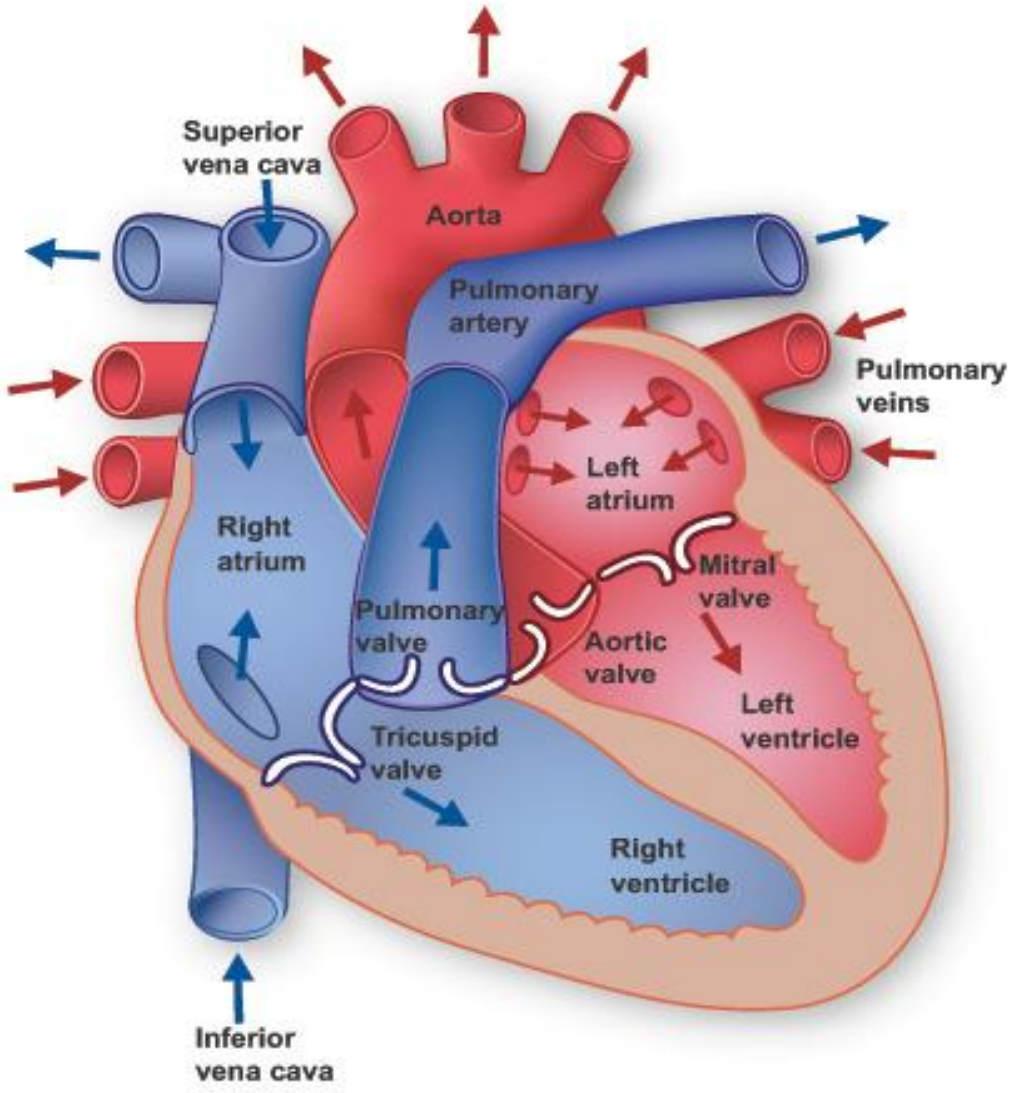
Cardiovascular System: Blood Vessels

- The blood vessels (system of channels)
  - Arteries and arterioles transport blood away from the heart.
  - Veins and venules return blood to the heart.

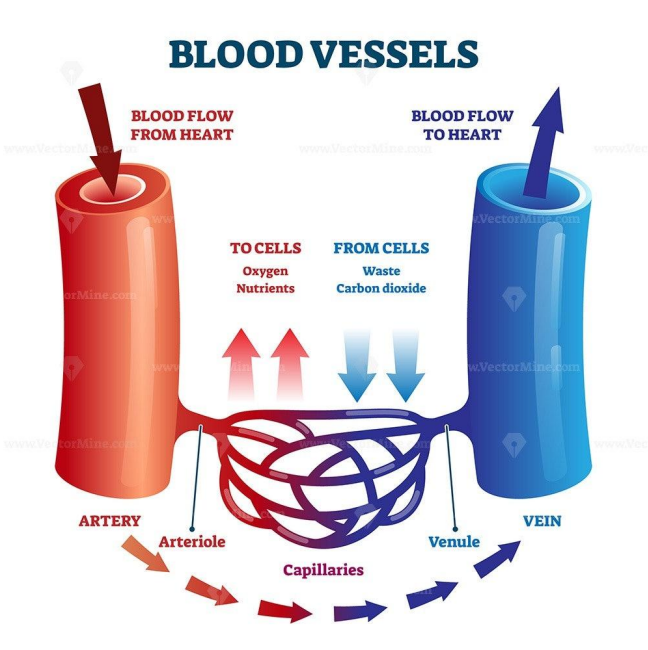
Cardiovascular System: Blood

- The blood (fluid medium)
  - Plasma makes up 55- 60 % of blood and comprises water (90%), proteins (7 %) and electrolytes, enzymes, fats, etc. (3 %).
  - Formed elements make up 36 – 40 % (women) / 40 – 45 % (men) and comprises red blood cells (99%) and white blood cells (1 %).
  - Hemoglobin is the oxygen-carrying molecule.

Cardiovascular System



Blood Distribution



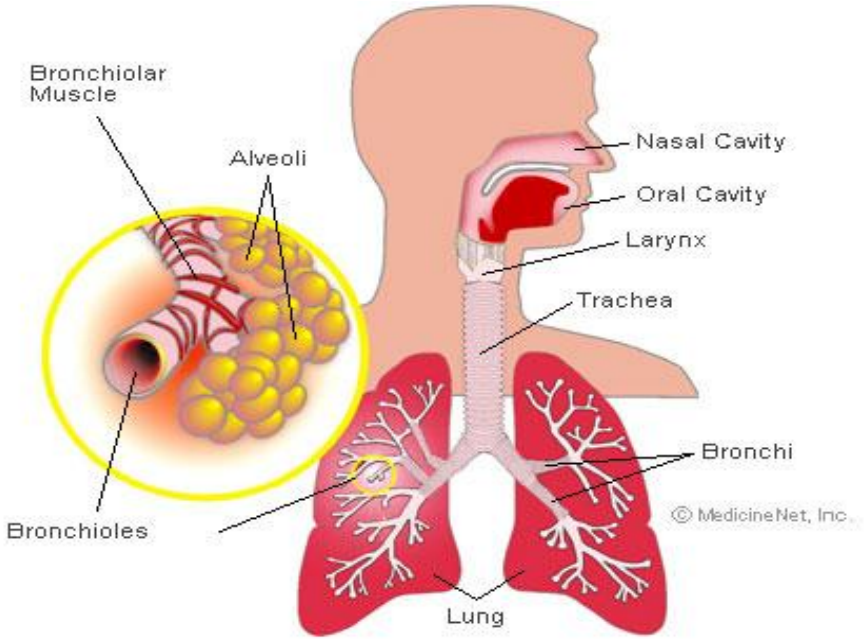
- Blood enters the right atrium, passes into the right ventricle before being ejected into the pulmonary artery towards the lungs to exchange carbon dioxide (CO_2) for oxygen (O_2)
- After O_2 enters the capillaries in the lungs, venules and veins (pulmonary veins) return blood to the left atrium, passing through the left ventricle before being ejected into circulation to deliver oxygen to the entire body
- Blood returns to the heart entering the right atrium once again

Blood Pressure

- Blood pressure is a measure of the outward force exerted by the blood upon the vessel walls.
  - During one single heart contraction cycle (approximately 1 second in duration at rest), the pressure within the vessels varies.
  - Coinciding with the heart contraction, the pressure is greatest and measured as Systolic Blood Pressure (SBP).
  - Coinciding with the heart relaxation or refilling phase, the pressure is lowest and measured as Diastolic Blood Pressure (DBP).

The Diaphragm

- A dome-shaped muscle that sits below the lungs and is the key breathing muscle.
  - When it contracts, it flattens and allows air to enter the body via the nasal and oral cavities
  - Air passes through the rigid trachea, splits down the left and right bronchi, into bronchioles and finally arrives at the alveoli where gas exchange occurs with the blood, exchanging O_2 for CO_2



Adaptations During Exercise

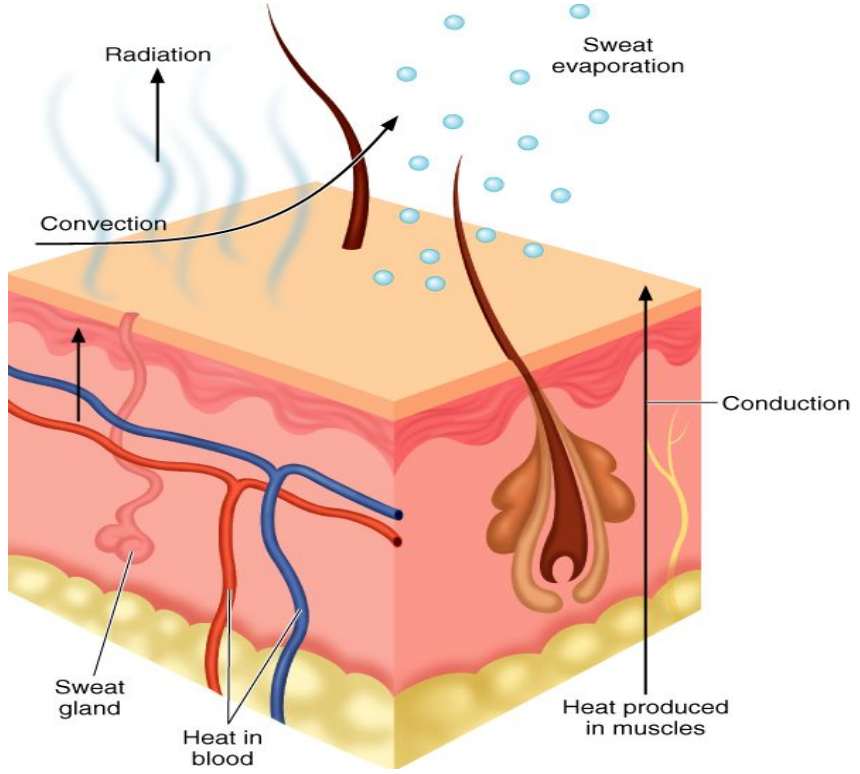
- During exercise, the muscle's demands for O_2 increases and the muscles produce more CO_2 as a result of respiration.
  - FUEL + OXYGEN = ENERGY + CARBON DIOXIDE + WATER

Acute Adaptations During Exercise

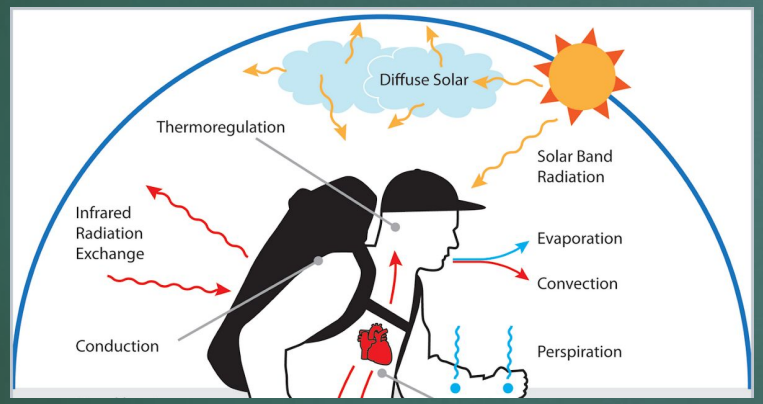
- Heart rate increases to circulate blood more rapidly and increases in proportion to exercise intensity.
- Stroke volume (the amount of blood ejected from the heart with each beat) increases to circulate more blood.
- SBP rises to increase the force of each heart contraction in order to eject more blood and overcome the resistance blood encounters when it reaches the exercising muscles.
- DBP changes very slightly or does not change at all, as the refilling phase is unaffected by the exercising muscles.
- Ventilation increases to deliver more O_2 to the working muscles and remove any excess CO_2 from the body.

Thermoregulation

- Heat generated in the core of body must be transported to the periphery (skin) and is eliminated from the body via five (four key) mechanisms:
  - Conduction – dry heat exchange
  - Convection – dry heat exchange
  - Radiation – dry heat exchange
  - Evaporation
  - Excretion



More About Thermoregulation



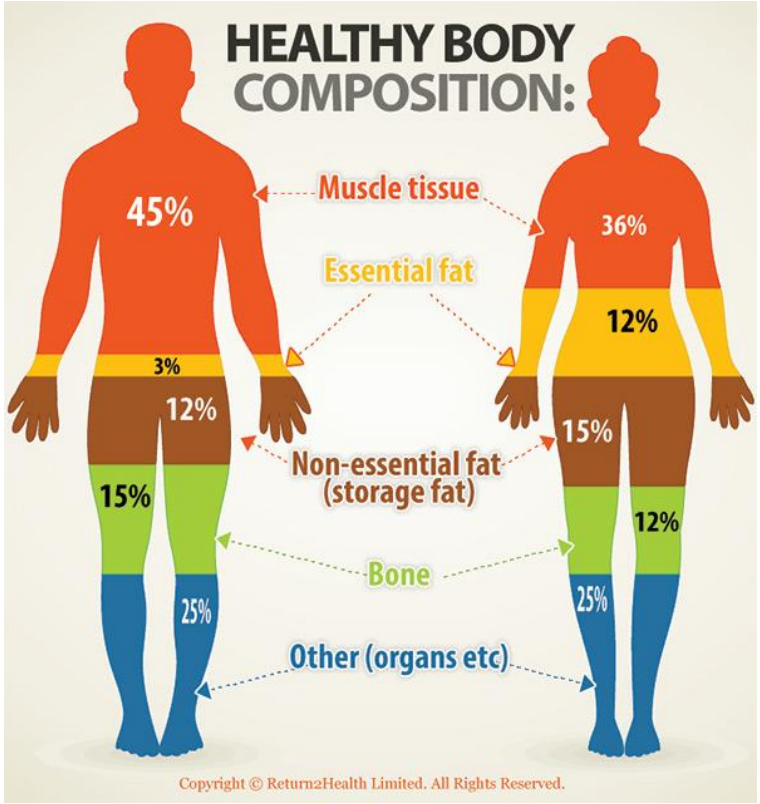
- Resistance to dry heat exchange is called insulation
  - In humans, the greatest insulators are fat, number of layers of clothing and the thermal properties of the fabrics we wear
- As sweating is the key mechanism during exercise and dependent upon hydration, dehydration will compromise our ability to remove heat and increase the likelihood of heat illnesses:
  - These include heat cramps, heat exhaustion and heat stroke

Thermoregulatory Mechanisms

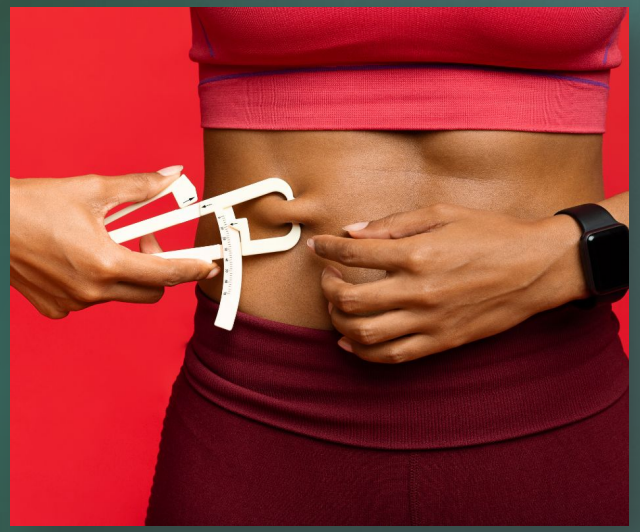
Thermoregulatory Mechanism	Rest	Exercise
Conduction & Convection	20 % of total	10 – 15 % of total
Radiation	55 – 60 % of total	5 % of total
Evaporation	20 % of total	80 %
Excretion / Lungs	5 – 10 % of total	< 2 % of total

Body Composition

- The body consists of two basic compartments:
  - Fat mass and Fat-free mass (often referred to as lean body mass)
- Two Types of fat mass
  - Essential Fat
  - Nonessential Fat

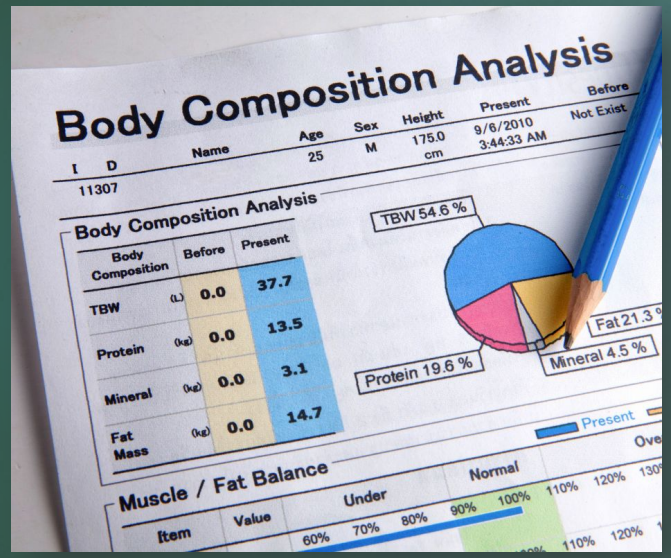


Essential Fat



- Essential fat is needed for normal physiological and biological functioning. It is found in bone marrow, the brain, the spinal cord, cell membranes, muscles, and other internal organs
  - Males: 2 – 4 %; Females: an additional 6 – 9% gender-specific fat (mammary tissue, etc.)

Nonessential Fat



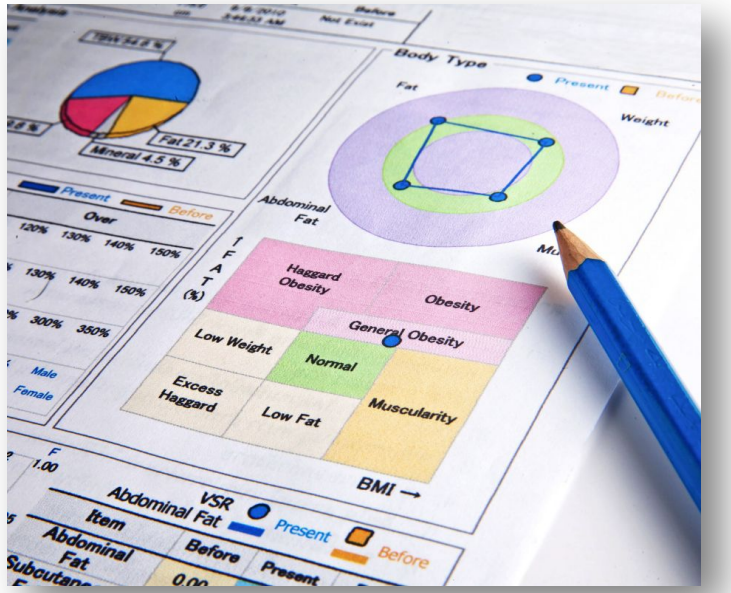
- Nonessential fat is layered below the skin in adipose tissue (sub-cutaneous fat) or found surrounding organs in the abdominal cavity (visceral fat) and serves three main functions
  - As an insulator to retain body heat
  - As an energy substrate during rest and exercise
  - As padding against trauma

Fat Free Mass

- Fat-free mass is composed of all the body's nonfat tissue including bone, muscle, organs, and connective tissue
  - Approximately 45 – 50 % of body weight in males = muscle mass
  - Approximately 36 – 40 % of body weight in females = muscle mass

Body Composition Changes

- Minimal body fat percentage levels:
  - 2 – 4 % (males)
  - 8 – 12 % (females)
  - Believed that females have a “critical level” between 13 – 17% where normal menstrual cycles can become disrupted



Body Composition: Males

- Males gain approximately 1.25 lb fat mass per year (ages 18 – 44) and 0.81 lb fat mass per year (ages 45 – 65).
  - Fat Free Mass peaks in our 20's – 30's, then declines steadily at 0.5 lb per year or approximately 5 % per decade (loss of skeletal muscle mass, bone mineral density, organ mass and total body water)

Body Composition: Females

- Females gain approximately 0.97 lb fat mass per year (ages 18 – 44) and approximately 1.14 lb fat mass per year (ages 45 – 65)
  - Fat Free Mass peaks in 20's – 30's, then declines steadily at 0.4 lb per year or approximately 2.5 % per decade (loss of muscle mass, bone density, total body water, etc.)

Nutrition: Macronutrients - Carbohydrates

- Roles and classification:
  - Monosaccharides – single sugar units: Glucose, galactose, fructose
  - Disaccharides – 2 sugar units: Sucrose, lactose, maltose
  - Oligosaccharides – 3-10 sugar units: Starches, short chains of glucose: digested to monosaccharides to be digested
  - Polysaccharides – ≥ 10 sugar units: Starches and fiber, long chains of glucose. Fiber non-digestible
  - Collectively Oligosaccharides, polysaccharides are called starches

Glucose Storage

- Body can store glucose in:
  - Blood (5 – 15 g)
  - Liver (90-110 g) as glycogen (storage form of glucose in the body)
  - Muscles (250 – 600 g +) as glycogen

Nutrition: Macronutrients - Proteins

- Roles and Classification:
  - Proteins digest from bigger molecules (long chain polypeptides - approximately 300 amino acids) to amino acids, di-peptides (pairs) and tri-peptides (triplets) for absorption.

Protein Storage

- Unlike the body's carbohydrate stores, the body stores protein uniquely:
  - 99 % of usable protein is found as muscle tissue.
  - 1 % of usable protein is found within free amino acid pools located inside cells and within the bloodstream.

Nutrition: Macronutrients - Fats

- Roles and Classification
  - Simple or Neutral fats: Triglycerides are the most abundant form of simple fats
  - Compound fats: Structures formed from the combination of simple or neutral fat (lipid) and a non-lipid molecule to form a more complex structure eg. High density lipoprotein or HDL
  - Derived fats: Structures derived from either simple or compound fats eg. Testosterone

Energy Balance & TDEE

- Energy Balance and Total Daily Energy Expenditure is influenced by three factors
  - Resting / Basal Metabolic Rate represents 60 – 75 % TDEE
  - Thermic Effect of Food represents 10 % TDEE
  - Physical Activity, Recovery and NEAT (non-exercise activity thermogenesis) represents 15 – 30 %

Calculating TDEE

- Calculate TDEE using the Mifflin-St. Jeor Equation
- Two steps:
  - Step One: Calculate RMR. (Resting Metabolic Rate)
  - Step Two: Calculate Energy of Activity – includes TEF.

Calculating RMR

- STEP 1: Calculate RMR
  - Women: RMR = (9.99 x kg) + (6.25 x cm) – (4.92 x age) – 161
  - Men: RMR = (9.99 x kg) + (6.25 x cm) – (4.92 x age) + 5

Calculate Energy of Activity

- STEP 2: Calculate TDEE using a Standard Activity Factor (Institutes of Medicine Method)
  - To calculate TDEE, multiply the calculated RMR score by a standard activity factor score:

Category	Physical Activity	Activity Score
Sedentary	< Dept of HHS / U.S. Surgeon General's guidelines (~ 54 % U.S. population)	1.0
Low Active	30 – 60 minutes of moderate activity daily	1.12
Active	≥ 60 minutes of moderate activity daily	1.27
Very Active	≥ 60 minutes of moderate activity daily + 60 minutes of vigorous activity daily or 120 minutes of moderate activity daily	1.45

TDEE Calculation Example

- Example: A low active (~ 30 – 45 minutes of moderate activity daily), 35-year old female who stands 5’5” (165 cm), weighs 155 lb (70.45 kg) with 28 % body fat.
  - RMR = (9.99 x kg) + (6.25 x cm) – (4.92 x age) – 161

    = 703.8 + 1,031.2 – 172.2 – 161 = 1,402 Kcal

Equation	RMR	IOM Activity Factor	TDEE
Mifflin-St. Jeor	1,402 kcal	x 1.12	= 1,570 kcal

Anatomical Terminology

Term	Description
Anterior (ventral)	Toward the front
Posterior (dorsal)	Toward the back
Superior	Toward the head
Inferior	Away from the head
Medial	Toward the midline of the body
Lateral	Away from the midline of the body
Proximal	Toward the attached end of the limb, origin of the structure, or midline of the body
Distal	Away from the attached end of the limb, origin of the structure, or midline of the body

<u>Anatomy</u>

***Refer to your Appendices to familiarize yourselves with the major muscles of the body and the ones used in various exercises…

More Anatomical Terminology

Term	Description
Plantar	The sole or bottom of the feet
Dorsal	The top surface of the feet and hands
Palmar	The anterior or ventral surface of the hands
Cervical (spine)	Regional term referring to the neck
Thoracic (spine)	Regional term referring to the portion of the body between the neck and the abdomen, also known as the chest (thorax)
Lumbar (spine)	Regional term referring to the portion of the back between the abdomen and the pelvis
Sagittal Plane	An imaginary line that divides the body or any of its parts into right and left sections
Frontal Plane	An imaginary line that divides the body into anterior and posterior parts; lies at a right angle to the sagittal plane
Transverse Plane	Also known as the horizontal plane; an imaginary line that divides the body or any of its parts into superior and inferior sections

Muscle Terminology

- Prime Movers or Agonists
- Antagonists
- Synergistic Muscles
- Stabilizer Muscles
- Muscle Origin
- Muscle insertion
- Ipsilateral
- Contralateral

Sagittal Plane Movement Terminology

Kinesiology – Applied Anatomy

Movement Terminology	Examples
Flexion – Decreasing the angle between two bones	Elbow flexion; knee flexion
Extension - Increasing the angle between two bones	Elbow extension; knee extension
Dorsiflexion – Moving the top of the foot towards the shin	Ankle dorsiflexion
Plantar flexion – Moving the sole of the foot downward	Ankle plantarflexion

Frontal Plane Movement Terminology

Kinesiology – Applied Anatomy

Movement Terminology	Examples
Abduction – Movement away from the midline of the body	Shoulder (arm) abduction; hip (leg) abduction
Adduction – movement toward the midline of the body	Shoulder (arm) adduction; hip (leg) adduction
Elevation – Moving to a superior position	Scapula elevation
Depression – Moving towards an inferior position	Scapular depression
Upward Rotation – Rotational movement to a superior position	Arm rotation upward
Downward Rotation – Rotational movement to an inferior position	Arm rotation downward

Transverse Plane Movement Terminology

Kinesiology – Applied Anatomy

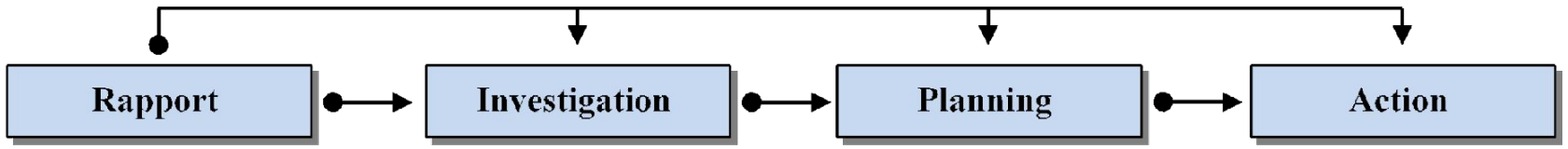
Movement Terminology	Examples
Rotation – Internal (inward) or external (outward) turning around the axis of a bone or the spine	Spinal rotation
Internal Rotation – Rotation of the humerus around the long axis	Internal humeral rotation
External Rotation - Rotation of the humerus around the long axis	External humeral rotation
Horizontal Flexion – From an abducted arm position, the humerus moves forward towards the midline	Arm movement into horizontal flexion
Horizontal Extension - From an abducted arm position, the humerus moves backwards	Arm movement into horizontal extension
Pronation – Rotating the hand and wrist, or foot inward	Forearm rotation; foot pronation
Supination – Rotating the hand and wrist, or foot outward	Forearm rotation; foot supination

Module III - Rapport

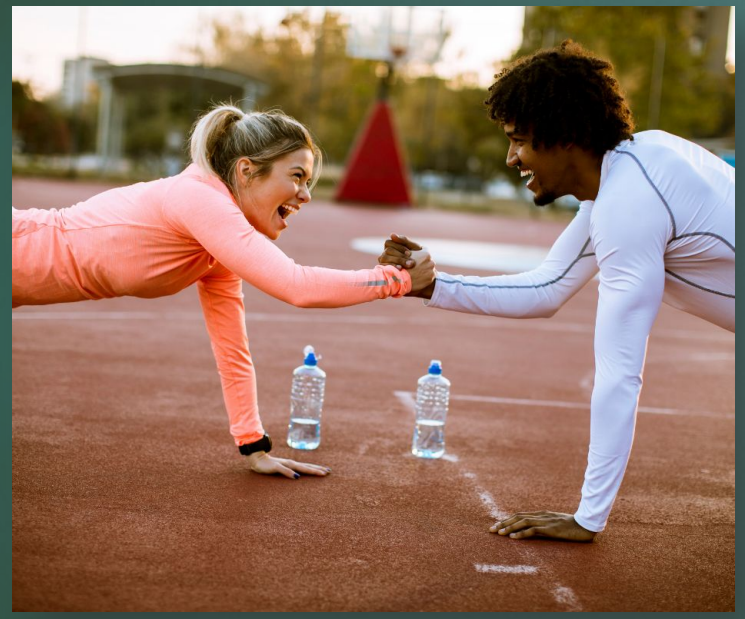
Developing Relationships

- Developing successful professional relationships with individuals involves four stages that occur sequentially.
  - Unlike the three latter stages that have somewhat clearly defined timelines, rapport is ongoing, continuing to develop throughout the relationship.

Figure 1: Stages to Successful Personal Training Client On-Boarding



Stage One: Rapport



- Involves the personal interaction you establish and maintain with your client and your ability to communicate with them effectively.
- This stage includes making impressions of professionalism, developing trust, demonstrating warmth and genuineness, and exhibiting empathy.

Stage Two: Investigation

- Involves the collection of all relevant information to identify the comprehensive needs of your clients and includes all psychological, emotional and physiological parameters.
- Keys:
  - Personality style
  - Identify readiness to change behavior
  - Stage of behavioral change
  - Collecting health and safety information
  - Lifestyle preferences, interests and attitudes
  - Understanding previous experiences
  - Conducting assessments

Stage Three: Planning

- Involves collaborative goal setting after the relevant information collected during the investigation stage is complete.
- Keys:
  - Goal setting
  - Programming considerations
  - Designing motivational and adherence strategies

Stage 4: Action

- Involves the successful implementation of all programming components and providing the appropriate instruction, feedback and progression as needed.
- Keys:
  - ✔ Instruction, demonstration and execution of the programming components
  - ✔ Providing feedback and evaluation with necessary adjustments to programs
  - ✔ Implementing strategies to improve motivation and promote long-term adherence
  - ✔ Monitoring overall program experience and progression towards goals.

Communication is Key

- Successful personal trainers consistently demonstrate excellent communication skills and teaching techniques while understanding the psychological, emotional and physiological needs and concerns of their clients.
  - Building rapport is a critical component to effective communication that promotes open, effective communication and development of trust. This translates into greater levels of participation in our clients
- Three essential attributes are needed to develop rapport:
  - *Empathy*.
  - *Warmth*.
  - *Genuineness*.

Moment of Truth

- The first impression you make upon an individual is possibly the most influential in their decision-making process to develop a relationship with you.
  - This first impression can be made in person, over the phone or even through email.
  - ALWAYS make a strong, convincing, and positive first impression called the ***"Moment of Truth."***
  - It is believed that within the first 11 seconds of meeting a person, they make seven decisions about you (*7-11 rule*).

Developing Rapport

- Remember, your immediate objective upon meeting new participants is ***NOT*** to start gathering information immediately and establish goals, but to build try build the foundation of rapport.
- Take a little time to acquaint yourself with the participant(s), but be sensitive to their individual personality traits which will help, determine the appropriate level of rapport needed.
  - All too frequently, we adopt the approach of getting down to business immediately and are forgetful of developing a personal relationship of building trust and comfort with individuals (akin to doctors bedside manner).
  - Take the time to "*talk*" and get to know who they are (not what they seek to achieve).

Attend to the Environment

- Where you first meet
  - Create a nurturing, professional environment by meeting in a quiet, comfortable area.
  - Lighting, music, etc.
  - Avoid high traffic areas, distractions or attempting to establish rapport with a walk-around (e.g., facility tour) or social setting.
  - Do not sit behind a desk, but rather sit facing the individual to create a level of comfort.
  - Be attentive to your own personal appearance (clothing, grooming, jewelry, scent, breath, etc).

Communicate Effectively

- Verbal communication translates only part of the message people send.
  - While we hear each other's words, we often seek to verify the verbal content by evaluating the speaker's non-verbal message including posture, facial expressions, gestures, eye contact, etc.
  - It is estimated that 55 – 90 % of communication is non-verbal, with the balance coming from verbal content

Attending Behaviors

- Involves the non-verbal messages we communicate to express the intended message and includes:
  - Distance and Orientation (body positioning)
  - Posture and Position
  - Mirroring and Gestures
  - Eye Contact
  - Facial Expressions
  - Voice Tonality

Distance and Orientation

- ***Body Positioning:*** Face the individual squarely and maintain appropriate distances to demonstrate respect for personal space (1½ - 4 feet is considered ideal, < 1 ½ feet is considered intimate space).

Posture and Position

- Adopt an open, well-balanced, erect, but relaxed posture with a slight forward lean towards the person to convey confidence and interest in the conversation.
  - Leaning or stooping suggests boredom and fatigue.
  - Rigid hands placed upon the hips can be interpreted as aggressive behavior.
  - Avoid crossing your arms or legs as it conveys a defensive stance.

Mirroring and Gestures

- Sensitively mimic the person's posture, gestures, voice tone, and tempo to help place them at ease and facilitate communication that is more open.
  - People generally feel more comfortable when individuals use relaxed, fluid gestures to convey messages.
  - Reduce distracting movements that may disrupt the individual's communication (e.g.) shifting in your seat, tapping your feet, etc.
  - Make your postural changes when you are transitioning to speak or speaking rather than when you are listening.

Eye Contact

- Maintain a relaxed look to help instill comfort but avoid fixed stares.
  - Looking away while a person speaks conveys disinterest, un-attentive behavior (not listening) or suggests diminished importance of the speaker.

Facial Expressions

- Convey emotion and works best when the emotion is sincere. Wear genuine smiles.

Voice Tonality

- Tonality and articulation, expresses confidence
  - Weak, soft, hesitant voices do not inspire confidence.
  - Loud, overbearing voices can make individuals nervous.
  - Develop a voice that is firm, confident, and professional, yet conveys warmth and compassion.
  - Avoid too many voice fluctuations, as it often proves distracting.

Listen Effectively

- Listening is the primary non-verbal communication skill, involves listening perhaps more than speaking.
- Humans can speak 125 – 250 words / minute, but can listen up to 500 words / minute.
- Effective listening implies listening to both the content and emotions behind the speaker's words.

Listening Levels

- Listening occurs at different levels:
  - ***Indifferent listening*** where one is not really listening (gated out).
  - ***Selective listening*** where one listens only to key words.
  - ***Passive listening*** where one gives the impression of listening by using minimal non-committal agreements (e.g. head nods, “ah huhs”).
  - ***Active listening*** where one is empathetic and listens as if in the speaker’s shoes. This form is the key to effective listening.

Listen Effectively Continued

- Be *attentive* and *empathetic* regardless of personal opinion.
- Separate meaningful content from superfluous information.
- Don’t get caught on trigger words (hot buttons) that distract you from listening and understanding the entire message.
- Be aware the person’s emotional patterns change based upon the nature of the content being discussed.
- Be conscious of how cultural and ethnic differences affect communication (e.g. averting eyes from a person while speaking).

Speaking

- Remember through verbal messages one can recognize both the apparent (cognitive) and underlying (affective) content of communication.
  - Cognitive messages are more factual.
  - Affective messages are composed of feelings, emotions and behaviors and often expressed via both verbal and nonverbal communication.

Practicum: Rapport-Building

- *Exercise Objective*: Learn to concentrate on conversing and developing rapport without moving prematurely into the investigative stage.
- *Instructions:*
  - Divide into pairs and identify one person as the trainer and one as the prospective client.
  - Briefly role-play the initial 60 seconds of a first encounter with a prospective client who is interested in personal training and engage them in a conversation to start establishing rapport.
  - After completing the exercise, reverse the roles and repeat until each person has role-played both characters.

Discussion

- Was it difficult?
- What did you focus upon?

Module IV: Investigation Phase

Health Screening

- The health screening is a vital FIRST step in the personal trainer/client relationship.
  - It identifies the presence or absence of known cardiovascular, pulmonary and/or metabolic disease, or signs or symptoms suggestive of cardiovascular, pulmonary and/or metabolic disease.
  - It identifies individuals at increased risk who should:
  - First undergo medical evaluation and exercise testing before initiating an exercise program
  - Be excluded from exercise or physical activity until those conditions are corrected or are under control.
  - Should exercise in medically-controlled environments.

Health Risk & Fitness Assessments

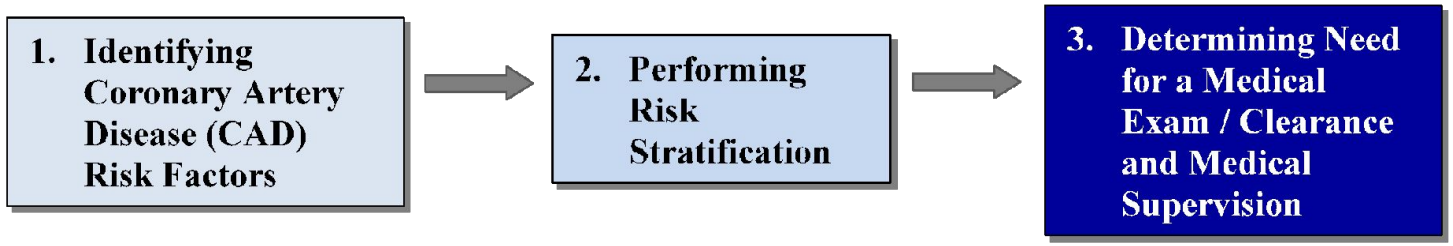
- These HRA questionnaires are designed to provide information regarding existing risks for participation in activity and need for medical clearance beforehand.
  - A pre-participation screening **MUST** be performed on all new participants regardless of age upon entering a facility that offers exercise equipment or services.
  - The screening procedure should be valid, simple, cost- and time-efficient and appropriate for the target population.
  - Screening procedures range from self-administered questionnaires to elaborate tests:
    - For individuals participating in self-guided or directed activity, they should at least complete a minimal HRA.
    - The *Physical Activity Readiness Questionnaire (PAR-Q)* has been used successfully when a short, simple medical/health questionnaire is needed.

PAR-Q

- Experts recognize the PAR-Q as a **minimal**, yet safe pre-exercise screening measure for low-to-moderate, but not vigorous exercise training.
  - It serves as a minimal HRA prerequisite.
  - It is quick, easy and non-invasive to administer.
  - It is however, limited by its lack of detail and may overlook important health conditions, medications and past injuries.
    - Complete the PAR-Q & You, a questionnaire for people aged 15-69.

ACSM/AHA Health/Fitness Facility Questionnaire

- Ultimately, when working with clients, you will need to learn how conduct your health risk assessment using a tool more complex than the PAR-Q.
  - The *ACSM/AHA Health/Fitness Facility Pre-participation Screening Questionnaire* more thoroughly investigates one's risks for exercise.
  - The basis for recommending physical activity / exercise, a medical examination, exercise testing, and physician supervision is based off the stratification of the risk of the individual who qualifies as a low, moderate or high risk.



Screening Continued

Risk Factor	Defining Criteria
Age	Men ≥ 45 years; Women ≥ 55 years
Family History	Heart attack, 'Bypass surgery', or sudden death before the age of 55 years for father/brother; or before 65 years for mother/sister
Cigarette Smoking	Current smoker, or have quit < 6 months, or is exposed to environmental smoke.
Sedentary lifestyle	Not participating in moderate physical activity at least 3 days/week for 3-months
Obesity	Body mass index ≥ 30kg/m^2 *or* waist girth > 102 cm (40in) for men and > 88 cm (35in) for women.
Hypertension	Systolic Blood Pressure ≥ 140 mmHg and or Diastolic ≥ 90mmHg or taking medication.
Dyslipidemia	LDL ≥ 130 mg/dl, or HDL < 40 mg/dl, or taking medication. Or TC > 200mg/dl
Pre-diabetes	IFG ≥ 100mg/dl *or* OGTT ≥ 140 and ≤ 199mg/dl confirmed by two different measurements
Negative Risk Factor	
HDL	≥ 60mg/dl

ACSM's Guidelines for Exercise Testing & Prescription. LWW, 2014 (p. 27)

- Low risk: Less than 2 risk factors
  - No medical examination/supervision required.
- Moderate risk: 2 or more risk factors
  - Medical exam recommended before rigorous exercise.
- High Risk: Has a known cardiovascular, pulmonary, or metabolic disease.
  - Medical exam and supervision recommended before exercise.

Fitness Assessment Overview

- A fitness assessment is important during the early stages of the personal training process as it:
  - *Collects baseline data* in order to develop personalized programs and allow program evaluation (progress) using follow-up data.
  - *Identifies areas of health / injury risk* for possible referral to the appropriate health professional(s).
  - *Educates* clients about their present physical condition by allowing comparisons to normative data for age and gender.
  - *Motivates* individuals by helping them establish realistic goals.

Physiological Assessment Overview

- Physiological assessments you should be familiar with and be competent to administer include:
  - Resting vital signs (heart rate and blood pressure).
  - Static posture and movement screens.
  - Joint flexibility and muscle length.
  - Balance and core function.
  - Cardiorespiratory fitness.
  - Body composition.
  - Muscular endurance and strength.
  - Skill-related parameters (agility, coordination, power, reactivity and speed).

HRA Road Blocks

- Be aware that ***not all clients need or desire assessments*** initially.
  - They may be de-motivating to some individuals as they may feel uncomfortable, intimidated, overwhelmed or embarrassed by their current physical condition or by the complexity of the protocols.
  - May prove to be counterproductive to program success.
  - Others might not be able to cope effectively cope with the results.
- Good trainers, always consider the need, appropriateness, type and time for conducting their assessments on each client on a case-by-case basis and prioritize their timelines in which to conduct tests.
  - <u>Never omit your HRA !!!</u>

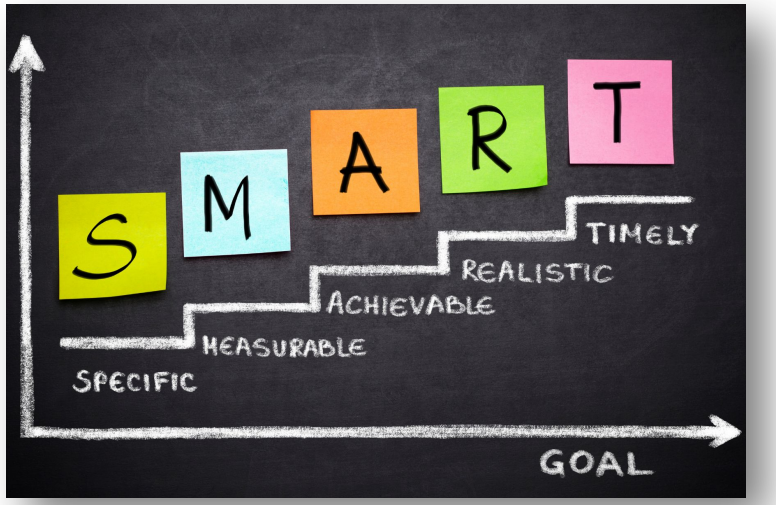
What to Assess

- Heart Rate and practicum.
- Aerobic Fitness – Rockport 1 Mile Walk Test (discussion).
- Waist-to-Hip Ratio (WHR) and practicum.
- Static Postural Assessment
- Flexibility - Thomas Test and practicum.
- Flexibility – Passive Straight Leg Raise (PSL)
- Flexibility – Shoulder Internal and External Rotation
- Movement – Bend and Lift Screen

Module V: Planning Phase

Goal Setting and Motivation

- What drives participation is the experience….
- Establish goals that follow the S.M.A.R.T acronym:
  - While clients may have many goals, try to limit their concurrent goals to between 1 and 3 and prioritize them as needed.
  - *Specific*
  - *Measurable* (objective and subjective)
  - *Adjustable*
  - *Realistic*
  - *Timeframe*



Motivational Strategies

- Identify appropriate motivational strategies that precede and follow behavior
  - Extrinsic forms of motivation (e.g. rewards, recognition) are more effective to use during the first 6 months of starting a program.
  - Intrinsic motivational strategies (e.g. self-gratification, feelings, experience, and accomplishment) are more effective to use beyond 6 months of training.
    - *Extrinsic motivation favors short-term compliance*
    - *Intrinsic motivation favors long-term adherence*
- Plan to transition your client towards more intrinsic forms within the first 6 months of training.

Cardio Programming

- Cardio Programming (2010 ACSM General Exercise Guidelines)
- Programming follows an easy-to-remember acronym called **F.I.T.T.E.**
  - Frequency
  - Intensity
  - Type (modality)
  - Time (duration)
  - Enjoyment

Monitoring Exercise

- Exercise is usually monitored by intensity and progressed by manipulating frequency, intensity and duration of exercise.
- Intensity is monitored by:
  - Heart rate, usually as a percentage of maximal heart rate *(% MHR)* or by percentage of heart rate reserve *(% HRR)*
  - Ratings of Perceived Exertion *(RPE)*
- While percentage of Maximal Heart Rate (% MHR) is still popular, we <u>no longer</u> use the 220 – age formula to estimate MHR. Instead we use more accurate formulas:
  - *Tanaka formula:* 208 – (0.7 x age).
  - *Example:* A 20-year old has a MHR of 208 – (0.7 x 20) = 208 – 14 = *194 bpm*
- RPE is used to quantify a participant's <u>*overall*</u> feelings and sensations regarding the stress of physical activity subjectively.

Frequency

- Moderate exercise = 50 – 60 % HRR or 60 – 75 % MHR should be performed ≥ 5 x /week

OR

- Vigorous exercise = > 60 % HRR) should be performed ≥ 3 x / week

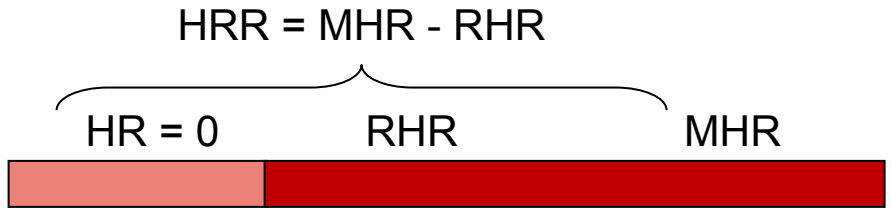
OR

- Perform a combination of either 3 – 5 x / week.
- Obese individuals should strive to achieve 5 – 7 x / week due to lower tolerance for activity.

Intensity

- When using % MHR, aim for a range between 64 and 74 % up to 94 % of MHR
- When using % HRR, aim for a range between 30 – 85 % of Heart Rate Reserve (HRR).
- When using this formula, complete the following steps:
  - Calculate the HRR (**HRR = MHR – RHR)**
  - Calculate the percentage of the HRR
  - Add the RHR back onto this value to determine your training or target HR.

Karvonen Method: Target HR (THR) = (HRR x % Intensity) + RHR



Heart Rate Calculation Example

- *Example:* Calculate the target heart rate for a 25 year old with a resting HR of 60 who will exercise at 65 % HRR?
- **Karvonen Method: Target HR (THR) = (HRR x % Intensity) + RHR**
  - MHR = 208 – (0.7 x 25) = 191 bpm
  - HRR = 191 – 60 = 131 bpm
  - % HRR = 65 % of 131 bpm = 131 x 0.65 = 85 bpm
  - Target HR = % HRR + RHR = 85 + 60 **= 145 bpm**

Type (Modality)

Exercise Description	Recommend for	Examples
Endurance activities requiring minimal skill or fitness	All adults	Walking, slow-dancing
Vigorous-intensity endurance activities requiring minimal skill	Adults participating in regular exercise or having ≥ average fitness	Jogging, rowing, spinning, elliptical, stepping
Endurance activities requiring higher skill levels	Adults with acquired skill and fitness levels	Swimming, cross-country skiing,
Recreational sports	Adults participating in regular training with acquired fitness levels	Soccer, basketball, racquet sports

Time (Duration)

Physical Fitness Classification	Weekly kcal Expenditure	% MHR	% HRR	Duration / day	Weekly Duration
Poor	500 – 1,000	57 – 67 %	30 – 45 %	20 – 30 min	60 – 150 min
Poor-fair	1,000 – 1,500	64 – 74 %	40 – 55 %	30 – 60 min	150 – 200 min
Fair-average	1,500 – 2,000	74 – 84 %	55 – 70 %	30 – 90 min	200 – 300 min
Average-good	> 2,000	80 – 91 %	65 – 80 %	30 – 90 min	200 – 300 min
> Good-excellent	> 2,000	84 – 94 %	70 – 85 %	30 – 90 min	200 – 300 min

Enjoyment:

- Activity or exercise needs to be engaging and must be a positive experience

Progression

- Increase by 10 % per week or 5 – 10 minutes every 1 – 2 weeks over the initial 4 – 6 weeks.
- Progressions thereafter should aim to meet the recommended guidelines.
- While intensity offers the MOST effective method to improve conditioning, it is also associated with the highest rate of attrition because it can create poor experiences.
- Generally, you should plan to progress duration first (until that reaches their allowable time cap), then progress frequency of exercise, before progressing intensity.

Practicum 1: Cardio Programming

Resistance Programming

- <u>Principles of Resistance Training</u>
- The resistance training program is planned around the needs, goals and current condition of the client (information collected during the assessment process).
- Effective, long-term adaptation to a resistance-training stimulus is guided by key principles that allow the body to adapt to the stress response from resistance training:
  - Principle of Specificity (“SAID” Principle):
  - Principle of Overload:
  - Principle of Progression:

The Variables of Exercise Program Design

- Intensity
- Volume
- Sets
- Repetitions
- Rest Interval
- Training Frequency/Recovery
- Exercise Order & Selection

- Application depends upon needs assessment and goals.
- Manipulate variables to control training stress

Intensity

- Intensity defines the specific amount of resistance or external load applied to muscles.
- If the same resistive force is consistently applied, then the muscle will not be stimulated to produce greater levels of force and a training overload will not be created.
  - Intensity is written as a % of the maximum amount of weight lifted for one repetition (e.g., one repetition max is written as 1RM).
  - Greater intensities increase motor unit recruitment and muscle force production, which translates into gains in *strength* and *power*.

Volume

- Volume defines the total amount of work performed (weight lifted) during an exercise session.
- It is generally expressed as a product of (intensity) X (sets) X (number of repetitions).
- The total volume of a workout should be dictated by training experience and training goals.
  - Volume increases time under tension (TUT) which translates to increases in muscle size and mass *(hypertrophy).*

Sets

- A set is defined as a group of repetitions.
- 1 set x 10 – 12 repetitions to muscle fatigue is sufficient to create initial strength improvements.
- Increasing sets requires additional time and may therefore need to consider altering their set design to save time.

Repetitions

- Repetition refers to the consecutive number of times a particular exercise movement is performed before resting.
- Number of repetitions is inversely proportional to intensity:
- The greater the load, the fewer number of repetitions will be able to be completed
- The lighter the load, the greater number of repetitions will be able to be completed.

# Repetitions	% 1RM	# Repetitions	% 1RM	# Repetitions	% 1RM
1	100	5	87	9	77
2	95	6	85	10	75
3	93	7	83	11	70
4	90	8	80	12	67
				15	65

Reference: **NSCA Essentials of Strength Training and Conditioning (3rd ed.) 2008.**

Rest Interval

- A rest interval is the period of rest between sets in a particular workout session and is needed to allow muscles to replenish energy stores (ATP) and the nervous system to recover from fatigue.
- During a workout, the heavier the load, the longer the inter-set rest interval needed.

Training Goal	Rest Interval Length
Muscular Endurance	≤ 30 seconds
Hypertrophy	30 - 90 seconds
Strength	2 - 5 minutes
Power (single multiple-event effort)	2 - 5 minutes
Reference: NSCA Essentials of Strength Training and Conditioning (3rd ed.) 2008.	

Training Frequency/ Recovery

- Frequency refers to the number of training sessions completed within a specific time and can be viewed as a recovery period or the amount of time between consecutive workouts.
- Adequate recovery is important to allow the trained muscles sufficient time to adapt and repair and restore energy reserves before being trained again.
  - Strength gains (adaptations) occur during the recovery phase, NOT the actual training session.
  - Insufficient rest and recovery in between workouts can lead to injury or overtraining and affect your client's ability to achieve their goals.
- Training frequency is dependent upon the individual's training goals, experience, conditioning status and available time.
- Appropriate recovery intervals for endurance training programs are 24 - 36 hours.
- Appropriate recovery intervals for hypertrophy and strength training programs are ≥ 48 hours.

Exercise Order and Selection

- The order of exercises refers to the sequence of performing resistance exercises.
- Basic guidelines include:
  - Power and max-strength exercises should be performed at the beginning of the workout session when the client has the highest levels of energy; if power exercises are performed later in the workout the client might experience neural fatigue, which increases the risk of injury.
  - Primary exercises that include multi-joint, compound movements for the hips, trunk and shoulders (e.g. squats) should also be performed at the beginning of a workout.
  - Assistance exercises that include single-joint, isolated movements (e.g. biceps curls) can be performed later in the workout.

Exercise Order and Selection Cont.

- Basic guidelines include (cont.):
  - During circuit training, trainers should alternate lower and upper extremity exercises to allow adequate recovery times for a muscle group.
  - While trainers may be tempted to change exercises frequently to keep the program interesting, consider the need for some consistency before changing the exercises to promote success, mastery and the development of self-efficacy.
  - In light of all the modern “functional” equipment available in clubs today, trainers should also carefully select exercises that are appropriate to their client’s current conditioning level and recognize how and when to progression the exercises selected.

Training Outcomes

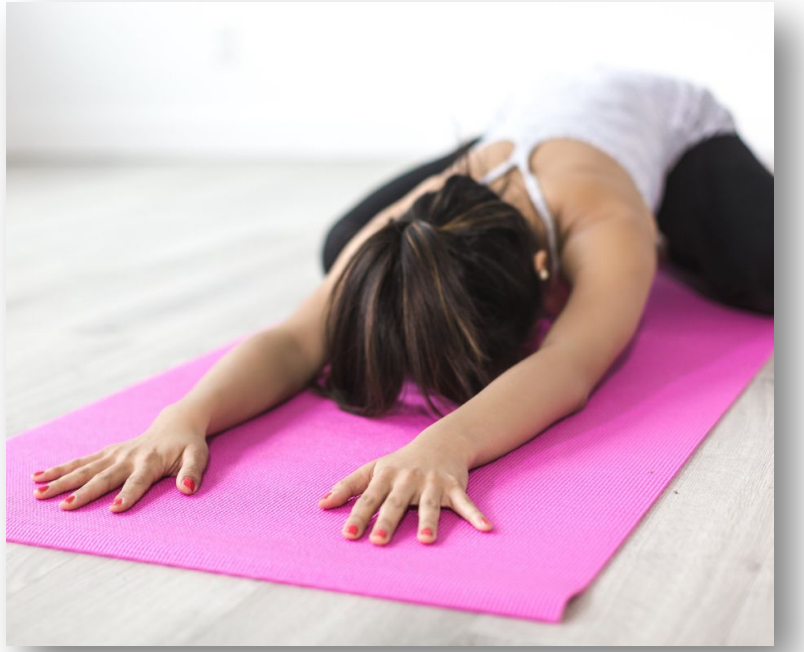
- Purpose of exercise program design is to manipulate variables to produce the desired adaptations.

Training Goal	Repetitions (per set)	Sets (per exercise)	Intensity (% 1RM)
Muscular Endurance	≥ 12	2 – 3	≤ 67%
Hypertrophy	6 - 12	3 – 6	67 - 85%
Strength	≤ 6	2 – 6	≥ 85%
Power •Single-repetition event •Multiple-repetition event	 1 - 2 3 - 5	 3 - 5 3 - 5	 80 - 90% 75 - 85%
Offload	Reduce volume	Reduce volume	Reduce intensity
Reference: NSCA Essentials of Strength Training and Conditioning (3rd ed.) 2008.			

Practicum 2: Resistance Programming

Flexibility Programming

- <u>What is Flexibility?</u>
  - Flexibility refers to the degree of tissue extensibility at a joint that allows for a functional range of motion (ROM).
  - It is dependent upon muscle properties and the nervous system's ability to control movement throughout the ROM efficiently.



Benefits of Flexibility

- Improved posture.
- Increased ROM and restored muscle balance.
- Decreased muscle tension, anxiety and improved mental state.
- Reduced joint stress.
- Improved performance and movement efficiency.
- Decreased injury risk and reduced muscle soreness.

Static

Modality	Variables	Notes	Demonstration
Static	✔2 – 4 reps x 15 – 30 sec ✔Target major muscle groups for a total of 15 -20 minutes ✔More muscle specific, not intended for whole body stretching	✔After ~ 5 sec of stretch tension, muscles may experience decreased localized blood flow (ischemia, lactic acid accumulation) which may increase fatigue.	Passive straight leg raise (hamstrings)

Proprioceptive Neuromuscular Facilitation

Modality	Variables	Notes	Demonstration
Proprioceptive Neuromuscular Facilitation (PNF)	✔2 – 3 reps with: •3 – 15 sec contraction •> 10 sec stretch ✔More muscle specific, not intended for whole body stretching	✔Partner-assisted. ✔**"Hold- Relax"** (simplest technique) ✔Passive movement to end-ROM ✔Mild (20-70% of maximal effort) isometric contraction ✔Progressively increasing intensity in that range is very effective ✔Deeper static stretch immediately following	Partner-assisted supine hamstrings stretch

Myofascial Release & Active Isolated Stretching

Modality	Variables	Notes	Demonstration
Myofascial Release	✔Apply constant pressure back and forth rolling 3 – 6" for 30 – 45 sec (> 30 reps) ✔Continue until client experiences noticeable decrease in tenderness or tension	✔A "knot" represents fibers not in alignment ✔Relaxes and aligns fibers in the direction of the healthy fibers of the muscle or fascia	*Roller:* thigh - posterior compartment
Active Isolated Stretching (AIS)	✔1 – 2 sets x 5- 10 reps, holding the end ROM for 1-5 ✔10-15 minutes targeting problem areas	✔Involves activating agonists to shut down tight antagonists ✔Involves isolated joint movement (single joint) in a more-supported environment with limited ROM	Active straight leg raise (hamstrings)

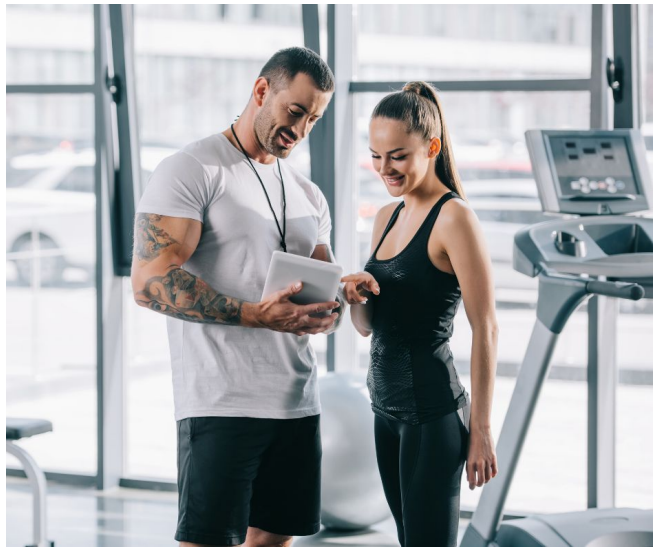
Dynamic Movement

Modality	Variables	Notes	Demonstration
Dynamic Movement	✔1 set x 10 reps at a controlled tempo ✔Progressively increase movement complexity, mimicking forthcoming activities ✔5-10 minutes on targeted areas	✔Integrated movement that relies on force production and momentum created in body to move joints through functional ROM. ✔Requires greater core stability, movement control, dynamic balance and coordination	Standing single-leg into an inverted flyer

Weight Management Programming

Ten Easy Steps to Helping Clients Manage their Weight

1. Avoid setting your client up for failure, set realistic weight loss goals of no more than 1 – 2 lbs /wk after weeks 2 – 4.
2. Set a goal to lose 5 - 10 % of body weight initially.
3. Incorporate strategies to increase overall activity.
4. Reduce caloric and fat intake.
5. Exercise portion control and make healthier choices.
6. Teach your clients how to read food labels.
7. Eat breakfast.
8. Establish support systems.
9. Apply strategies for stimulus control and antecedent control.
10. Develop coping strategies for obstacles.



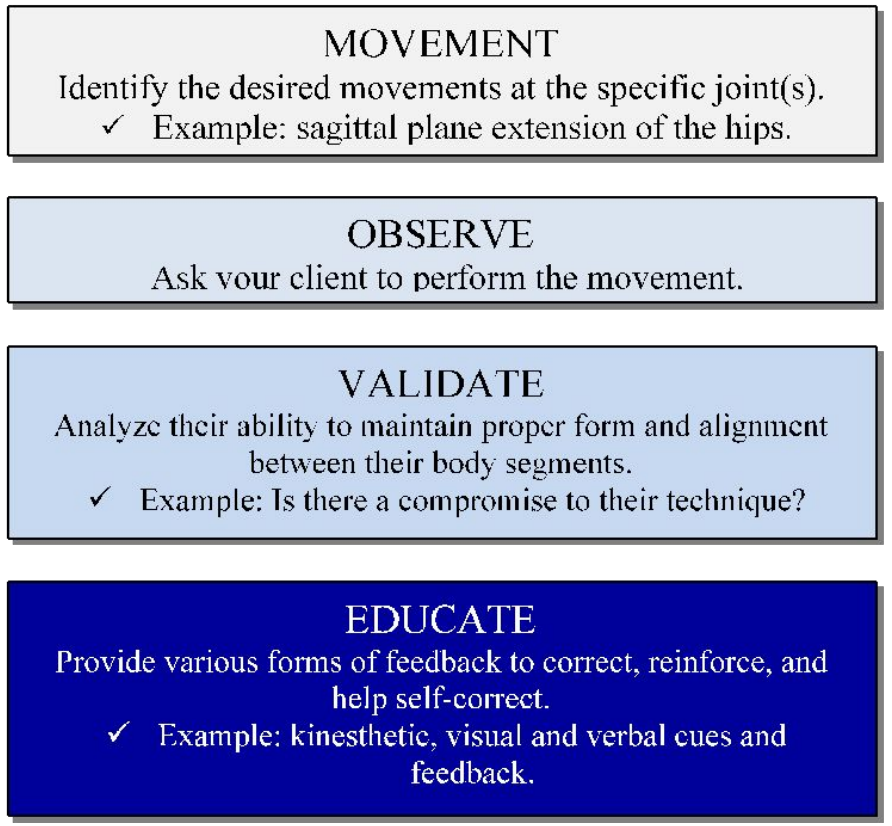
Module VI: Action Phase

Teaching Methodologies

- The explain-demonstrate-execute ("*tell-show-do*") format:
  - Briefly explain the objective of the exercise.
  - Continue to explain (coach) the technique points while providing a visual demonstration for your client to observe.
  - Allow your client the opportunity to perform the exercise and offer immediate (positive and corrective) feedback to facilitate learning.

Teaching Methodologies Cont.

- The M.O.V.E. Coaching Approach
  - Movement
  - Observe
  - Validate
  - Educate



Guidelines

- Briefly explain the objective of the exercise.
- As a trainer, identify (in your mind) which movements you are striving to achieve (e.g., which joints should move, which joints should remain stable, which planes of motion are we targeting)
- Instruct the exercise with explanations and demonstrations.
- Allow your client the opportunity to perform the exercise (observe)
- Identify where compromises occur and try to understand (validate) why the compromises are occurring.
- Offer immediate (positive and corrective) feedback to facilitate learning (educate)

Find a Purpose

- Three bricklayers were asked: “What are you doing?”
  - The first says, “I am laying bricks.”
  - The second says, “I am building a church.”
  - The third says, “I am building the house of God.”

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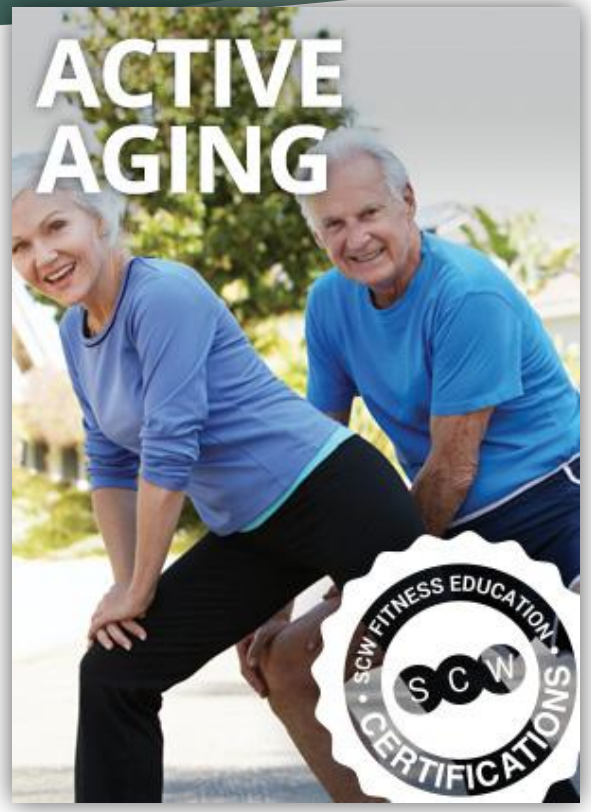

Thank you!

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