

COMPLEX TRAINING	A MULTI-JOINT AND HEAVY COMPOUND LIFT FOLLOWED BY AN EXPLOSIVE MOVE.
DROP SET	PERFORMING A SET TO FAILURE, THEN LOWERING THE WEIGHT AND CONTINUING ON.
GIANT SET	PERFORMING FOUR OR MORE EXERCISES IN A ROTATION WITH MINIMAL REST.
CIRCUIT TRAINING	A SERIES OF EXERCISES, BACK TO BACK, WITH MINIMAL REST.

SPLIT ROUTINES

TRAINING DIFFERENT PARTS OF THE BODY ON DIFFERENT DAYS.

VERTICAL LOADING

TRAINING STARTING WITH THE UPPER BODY, THEN WORKING YOUR WAY DOWN TO THE LOWER BODY.

HORIZONTAL LOADING

DOING ALL THE SETS OF AN EXERCISE OR BODY PART BEFORE MOVING TO THE NEXT ONE.

PERIPHERAL HEART ACTION SYSTEM

DESCRIPTION ON THE NEXT PAGE!

THE PERIPHERAL HEART ACTION SYSTEM IS AN EXAMPLE OF ONE OF THESE SYSTEMS.

It's a variation of circuit training.

**IN THIS SYSTEM YOU ALTERNATE BETWEEN
UPPER AND LOWER BODY EXERCISES.**



KIDS ARE ABLE TO PERFORM ENDURANCE TASKS PRETTY WELL.

That being said, they have decreased glycolytic enzymes compared to adults. This decreases their ability to do longer duration high intensity tasks.



**KIDS ALSO HAVE LESS RESISTANCE TO HEAT
AND HUMIDITY AND ENVIRONMENTAL
EXTREMES.**



THE FOUR P'S OF MARKETING

Product

Communicating the benefits of using



Price

Identifying a competitive price



Place

Selecting the place or method of dist.



Promotion

Determine how to promote the service



KNOW AND UNDERSTAND THEM!



Swot Analysis

Strengths: Competitive advantages (education, certs, skills, etc.)

Weaknesses: Be honest, where are you weak?

Opportunities: Identify opportunities, weaknesses can improve

Threats: What could impact your business? (economy, comp.)

Calculating Annual Income

- 1** Identify your desired yearly income
- 2** Figure out what income is needed weekly to get there
- 3** Estimate the weekly session count required to achieve the weekly income in step 2



It's common to be asked about two kinds of blood pressure meds.

Beta blockers & Diuretics



Beta blockers: these lower your heart rate at rest and during exercise. A client's heart rate won't raise the same way during exercise when they're on a beta blocker.



Diuretics: increase the excretion of water from the body through the kidneys. This could increase the likelihood of dehydration.



Type 1 Diabetes: These people have to inject insulin, they are insulin dependent. People usually develop this early.



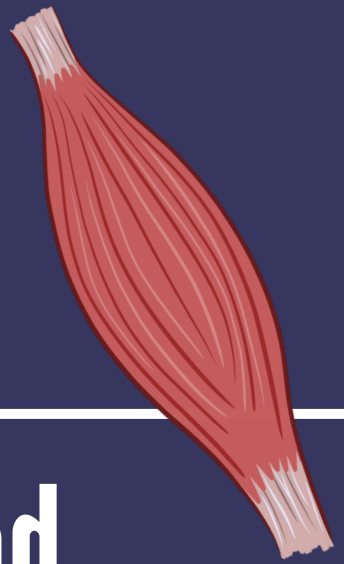
Type 2 Diabetes: These people are insulin resistant. This one usually comes from poor lifestyle choices. It's also more common.

Glycogen: stored form of glucose that's made up of connected glucose molecules.



Gluconeogenesis: The process of how glucose is created within the body. Protein can be used.

All or nothing principle: Muscles/motor units either contract fully or not at all.



Neuromuscular Specificity: Refers to the speed of muscle contraction and the exercise selection.

Mechanical Specificity: Refers to the weight and movements that are applied to the body.

Low-density lipoprotein (LDL) cholesterol:
"bad" cholesterol, carries cholesterol
through the bloodstream.



High-density lipoprotein (HDL) cholesterol:
"good" cholesterol, removes cholesterol
from the bloodstream.

Osteoporosis: a bone disease that causes bones to become weak and brittle, increasing the risk of fractures



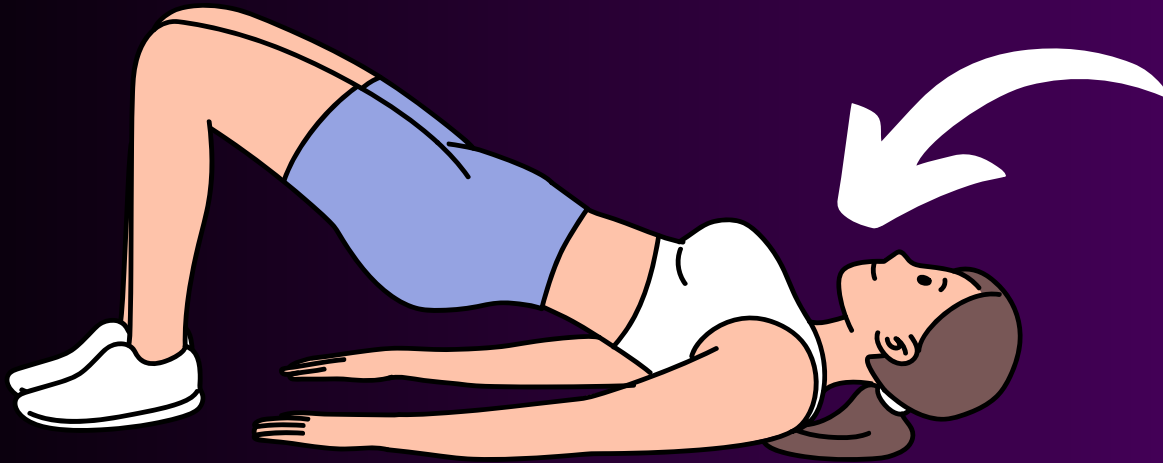
Osteopenia is a decrease in bone mineral density that's not severe enough to meet the diagnostic criteria for osteoporosis.

Integrated Training: A training principle that combines all forms of exercise (flexibility, cardio, resistance, etc.)



When a potential client says “yes” to signing up for personal training, when should their first appointment be scheduled? A: Within 48hrs

**Exercises on the floor
(supine) are contraindicated
for pregnant people after
the first trimester, and for
people with hypertension.**



**Common mistake: Raising
hips too high which can
cause hyperextension**

Some More Recommendations

Obese People

- At least 5 days a week of cardio
- 60-80% HR max for 40-60 mins

Pregnant People

- 3-5 days a week of cardio
- 40-50% HR max non weight bearing



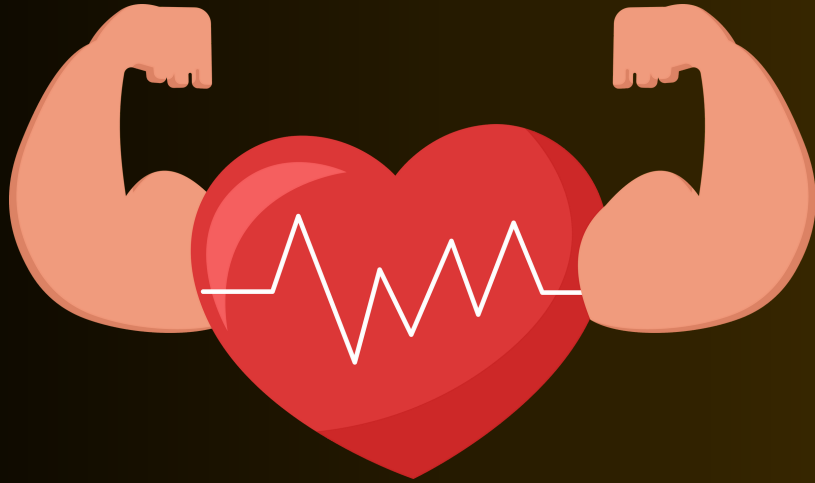
DOMS (delayed onset muscle soreness) usually begins to develop 12-24 hours after exercise and is most intense 24-72 hours later.



The eccentric portion of the lift, where the prime mover or agonist is stretching, is the part of the lift that causes the most soreness.

Max Hr. = 220 - AGE

**HRR Heart Rate
Reserve = Karvonen**



**Stroke Volume: amount of blood pumped out of
the heart's left ventricle with each beat.**

Cardiac Output: HR x SV

Local core muscles: Generally attach on or near the vertebrae. They're important for stabilizing the vertebrae and limiting strain on the spine.

**(transverse abdominus,
Quadratus lumborum)**

Global core muscles: More superficial. They're more involved when it comes to moving the trunk.

(rectus abdominus, psoas)



Local core muscles:

Drawing in: engaging the Transverse Abdominis muscle specifically (Close to the spine) for increased pelvic stabilization

“Core Marching”

Global core muscles: **Bracing**

is a co-contraction of global muscles, such as the rectus abdominis, and external obliques. Also called “bearing down”

**You need 2.0 CEU's to
renew your NASM CPT cert.
You get .1 for your CPR.**



Your client is in phase one of the OPT model. What rep, rest, and tempo scheme is most appropriate?



- A. Reps: 12-20 Rest: 60s Tempo: 4,2,1,1**
- B. Reps: 12-20 Rest: 60s Tempo: 2,0,2,0**
- C. Reps: 15-18 Rest: 90s Tempo: 4,2,1,1**
- D. Reps: 12-20 Rest: 90s Tempo: 4,2,1,1**

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- B. Hip flexion, Knee Flexion**
- C. Hip Extension, Knee Extension**
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This is happening to your client when squatting. What is overactive and what's underactive?



- A. Over: Hip Adductors Under: Hip Abductors**
- B. Over: Hip Adductors Under: Glute Max**
- C. Over: Gastrocnemius Under: Anterior Tibialis**
- D. Over: Hip Abductors Under: Hip Adductors**

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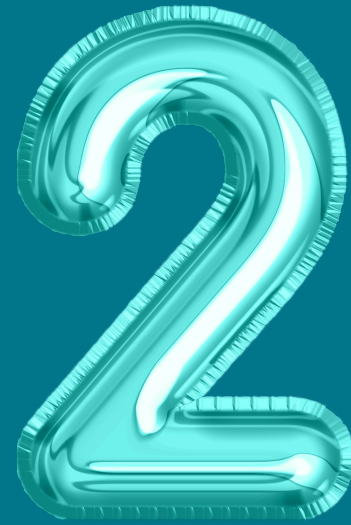
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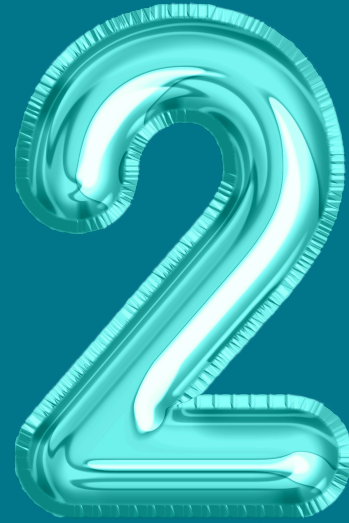
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What tempos occur in the second phase of the OPT model, Strength Endurance?



- A. 4,2,1,1 and 2,0,2**
- B. 2,0,2 and as fast as possible**
- C. 4,2,1,1 and as fast as possible**
- D. 2,0,2 and 1,2,4,1**

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D. 2,0,2 and 1,2,4,1

How many balance or core moves should you have your client do in phase 1 stabilization endurance?



- A. 1-3 for both**
- B. 1-3 for core and 4-5 for balance**
- C. 4-5 for both**
- D. The client will decide the day of the session**

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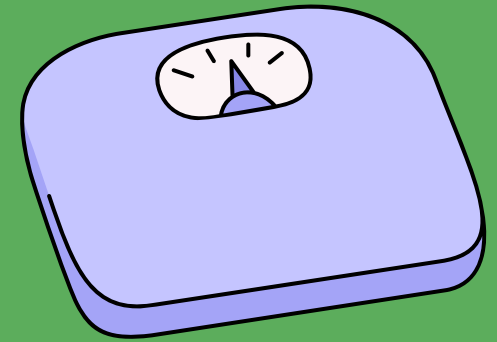


B. 1-3 for core and 4-5 for balance

C. 4-5 for both

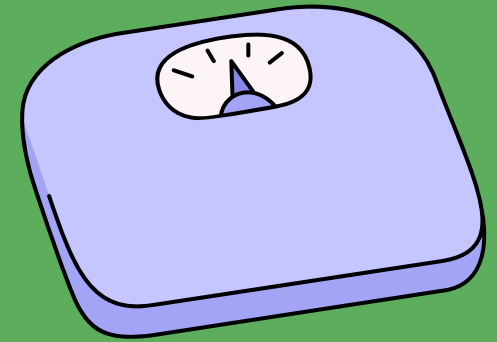
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You have female client who's 23% BF and may have an eating disorder ask you for weight loss advice, what should you do?



- A. Tell them “You’re weight is perfect, don’t worry!”**
- B. Kindly refer them to a Registered Dietitian**
- C. Tell them they need to be in a caloric deficit**
- D. Tell them to reduce their carbohydrate intake**

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