Kahoot Questions

1. Which type of periodization is MOST feasible and appropriate for untrained individuals?
	1. **Traditional (Linear)**
	2. Undulating (Non-Linear)
	3. Reverse Periodization
	4. Block Periodization

Explanation: see recorded lecture

1. Mike’s 1RM on bench press is 100 lbs. Which are the most appropriate parameters for bench press if his goal is MAXIMAL STRENGTH?
	1. 3 sets of 12 reps @ 75 lbs
	2. **4 sets of 5 reps @ 85 lbs**
	3. 2 sets of 20 reps @ 55 lbs
	4. 1 set of 1 rep @ 100 lbs

Explanation:

Option b corresponds with parameters that are most optimal for muscular strength. Option A would be appropriate if the goal was hypertrophy. Option C would be correct if the goal was muscular endurance. Option D would be a 1 rep max which is most appropriate for testing and not necessarily for training purposes.

1. After evaluating a baseball player, the PT concludes that there is insufficient deceleration of the shoulder during throwing. Which of the following strengthening techniques will be MOST effective in improving control of deceleration of the shoulder?
	1. **Eccentric exercises of the teres minor and infraspinatus**
	2. Eccentric exercises of the teres major and pectoralis major
	3. Concentric exercises of the teres minor and infraspinatus
	4. Concentric exercises of the teres major and pectoralis major

Explanation:

Throwing motion involves horizontal adduction and internal rotation of the shoulder. The shoulder muscles that are involved in the throwing motion are:

* + - Concentric: internal rotators (pec major, subscapularis, teres major, lattisimus dorsi)
		- Eccentric: external rotators (infraspinatus, teres minor)
1. You are trying to increase the muscular endurance of your patient’s subscapularis muscle, so you have them do 15 reps of standing internal rotation with a Thera-Band. After the first set, they report an RIR rating of 10 (meaning they think they could have done 10 more reps). What is the most appropriate action?
	1. Keep the load the same on the next set
	2. Decrease the load on the next set
	3. **Increase the load on the next set**
	4. Call 911

Explanation:

With an RIR of 10, the patient is suggesting that they could have done 25 total reps at the load that you prescribed. If the target rep range is around 15, then the task should be more challenging by the time they approach 15 reps, therefore indicating they would have a lower RIR value. Make sure not to confuse RIR with RPE. An RPE of 10 would indicate maximum effort, whereas an RIR of 10 indicates the patient could have done 10 more reps.

Keep in mind that using RIR at higher rep ranges is not as accurate for estimating a percentage of 1RM, but can still be used clinically as a tool to gauge effort.

1. Excessive upward rotation of the left scapula is noted as the patient attempts shoulder abduction. Which of the following exercises is MOST appropriate to help correct the excessive scapular rotation?
	1. Forearm wall slides to strengthen serratus anterior
	2. Shoulder shrugs to strengthen upper trapezius
	3. Standing wall push-ups to strengthen serratus anterior
	4. **Standing rows to strengthen the rhomboids**

Explanation:

Excessive upward rotation of the scapula indicates that the downward rotators are weak. The muscles that are responsible for downward rotation of the scapula include: rhomboids, levator scapulae, and pec minor.

Serratus anterior = upward rotation and protraction

Upper trapezius = upward rotation and elevation

1. A patient underwent surgical repair of Full Thickness Rotator cuff tear 6 days ago. PT wants to perform passive and assisted movement. Which position will be MOST appropriate for the patient?
	1. Patient in sitting with arm abducted 70 degrees with slight flexion.
	2. **Patient is supine with arm abducted 45 degrees with slight flexion.**
	3. Patient in sitting with arm abducted 15 degrees with slight flexion.
	4. Patient in supine with arm abducted 90 degrees with slight flexion.

Explanation:

Given that the patient had surgery 6 days ago, we know we are in the very acute stages of treatment, so we want to prioritize safety and protection of the repair. Therefore, we don’t want the patient to be placed in a position that will require them to work against gravity. So, supine is more appropriate than sitting. That narrows it down to b and d. Then, we want to choose the option that is less aggressive in terms of the ROM, which would be 45 degrees rather than 90 degrees, making B the correct answer.

1. A patient lying in supine on a mat table is asked to perform bilateral shoulder flexion. After observing the patient perform the described action, the physical therapist concludes that the patient has adaptive shortening of the latissimus dorsi. Which observation during testing would BEST support the hypothesis?
	1. **Increased lumbar lordosis**
	2. Decreased lumbar lordosis
	3. Increased thoracic kyphosis
	4. Decreased thoracic kyphosis

Explanation:

Under normal circumstances, a patient should be able to perform complete shoulder flexion without an increase in lumbar lordosis, however, with adaptive shortening of the latissimus dorsi the patient may not have full shoulder flexion and therefore attempts to compensate for the limitation by increasing the amount of lumbar lordosis. Increased lumbar lordosis assists the patient to achieve additional shoulder flexion range due to the insertion of the latissimus dorsi on the external lip of the iliac crest.

*Why not D?* The relative extent of thoracic kyphosis present would not significantly influence the amount of shoulder flexion present in the described testing procedure due to the origin and insertion of the latissimus dorsi.

1. A physical therapist instructs a patient in a traditional bench press exercise using free weights. Which modification would be the MOST beneficial to limit the amount of stress placed on the anterior capsule of the shoulder?
	1. Grasp the bar with a supinated grip with the hands slightly wider than shoulder width apart
	2. Ensure that the elbows are fully extended at the conclusion of the upward movement
	3. **Ensure that the bar does not contact the chest during the downward movement**
	4. Attempt to slightly raise the head off of the bench during the upward movement

Explanation:

In a typical bench press the patient is instructed to lower the bar until it touches the chest at approximately nipple level.

Ensuring that the bar does not contact the chest serves to reduce the amount of stress on the anterior capsule of the shoulder. Therapists should attempt to avoid instructing patients with known or suspected shoulder pathology in exercises that place the arms and hands behind the plane of the shoulder.