

Wellness Education for Peace Corps Volunteers

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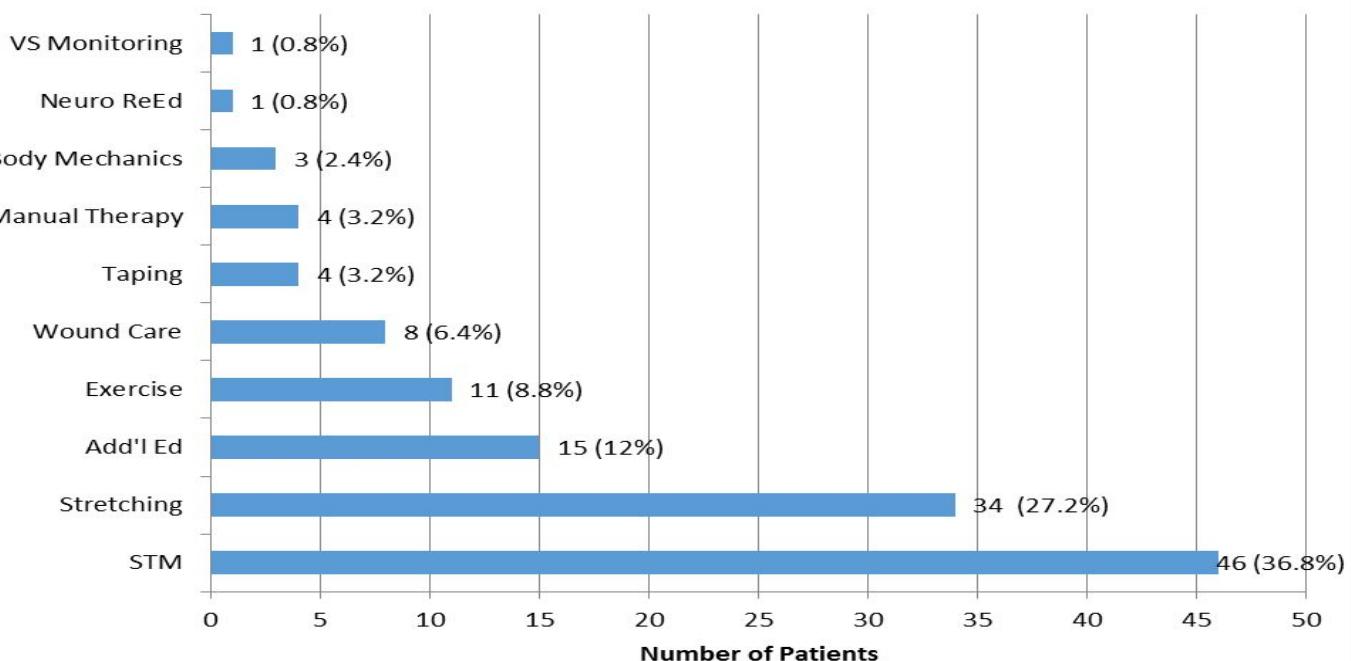
Learning Objectives

1. Describe four stretching techniques that benefit children with physically demanding lives.
2. Explain the benefits of teaching these stretches to members of the community.
3. Demonstrate proper lifting mechanics.
4. Teach the five key pieces of wearing a backpack properly.
5. List the warning signs of a backpack being too heavy.

Background

- Medical trip
- High rates of PT referral
- Ages most affected: 25-54 years old
- Lower quarter musculoskeletal issues most common
- 82% received physical therapy intervention
- Direct interventions included:
 - Body mechanics
 - Exercise
 - Stretching

Direct PT Interventions Provided



VS = vital signs; Neuro ReEd = neurological reeducation; Add'l Ed = additional education; STM = soft tissue mobilization
Total % may be greater than 100% as patients may have had > one direct intervention.

Why Peace Corps Volunteers

- Fluent in Spanish
- Integrated into the community
- Trusted and respected
- Can help disperse this information more effectively



Stretching

A photograph showing a person in traditional clothing stretching on a grassy, hilly terrain. In the background, there are extensive green mountains under a bright blue sky with scattered white clouds.

Stretching

- **Definition:** “any therapeutic intervention designed to increase extensibility of soft tissues thereby improving flexibility by lengthening structures that have adaptively shortened over time”
- **Goal:** “maximize ROM of a joint or segment by carefully and repeatedly stretching to surpass the acute elastic recoil properties of connective tissue and elicit a chronic plastic deformation over time”
- Important to be performed after some form of warm up
- Static stretching

Quad Stretch

- Location of muscle:
 - Group of 4 muscles on the top of the thigh
 - If the quads are shortened, or in pain it can cause pain in the knee on the same side.
- How to perform the stretch:
 - Place left hand on stable surface, while bending the right knee and holding top of foot with the right hand in a bent position
 - Should feel stretch in front of the right thigh
 - Hold for 30 seconds, twice on each side



Calf Stretch

- Location of muscle:
 - On the back of the lower leg
 - It often becomes painful after walking or running for long distances (especially up hills)
- How to perform:
 - Place both hands on a stable, non-moving surface
 - Place one leg closer to the wall, one leg farther from the wall, toes pointing forward.
 - The back leg should maintain a straight knee, and maintain the heel on the ground; this will be the key in feeling the stretch in the back of the lower leg.
 - Hold for 30 seconds, twice on each side



Hamstring Stretch

- Location of muscle:
 - On the back side of the thigh
 - Group of three muscles that share the purpose of extending the leg
- How to perform:
 - Sit on the ground and extend left leg,
 - Bend the right knee and place bottom of right foot on the inside of the left knee
 - Reach for the left foot toes with both hands, trying to keep your back straight
 - Hold for 30 seconds, twice on each side



Glutes Stretch

- Location of the muscle:
 - Set of 3 muscles on each side making up the bottom
 - Creates much of the power of the legs
- How to perform:
 - While sitting on the ground, bend the left leg and place your left foot on the ground
 - Place the outside of your right ankle on your bent (left) knee
 - You may already feel a stretch, if not lean forward towards your knees
 - You can use your hands for support behind you
 - Hold for 30 seconds, twice on each side



Lifting Mechanics

Lifting Mechanics

1. Keep your spine straight
2. Lift from a squat position, bending at the hips and the knees
3. Keep load close to your body throughout the lift, starting with near your feet
4. Lift the load from between your feet (if possible)
5. Use your gaze to guide the movement
6. Avoid twisting your back while lifting
7. If possible, change the height from which you are lifting the object

Lifting Mechanics

8. Move through the lift at a smooth moderate pace
9. Use a secure grip to grasp object
10. If object you are lifting is low:
 - a. Avoid trunk end ranges, especially flexion
 - b. Avoid combining movements (flexion, lateral flexion, rotation)
 - c. Utilize abdominal and trunk muscles during lift
 - d. Use muscles rather than ligaments during lift

Helpful Hints:

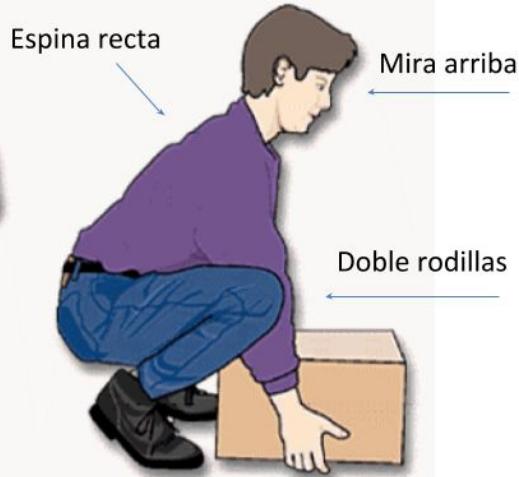
- Verbal instructions or guided discovery can be useful methods
- Relate back to how this will help them in daily life

LEVANTAR MAS SEGURO

¡NO!



¡SI!



Backpack Usage



Backpack Usage

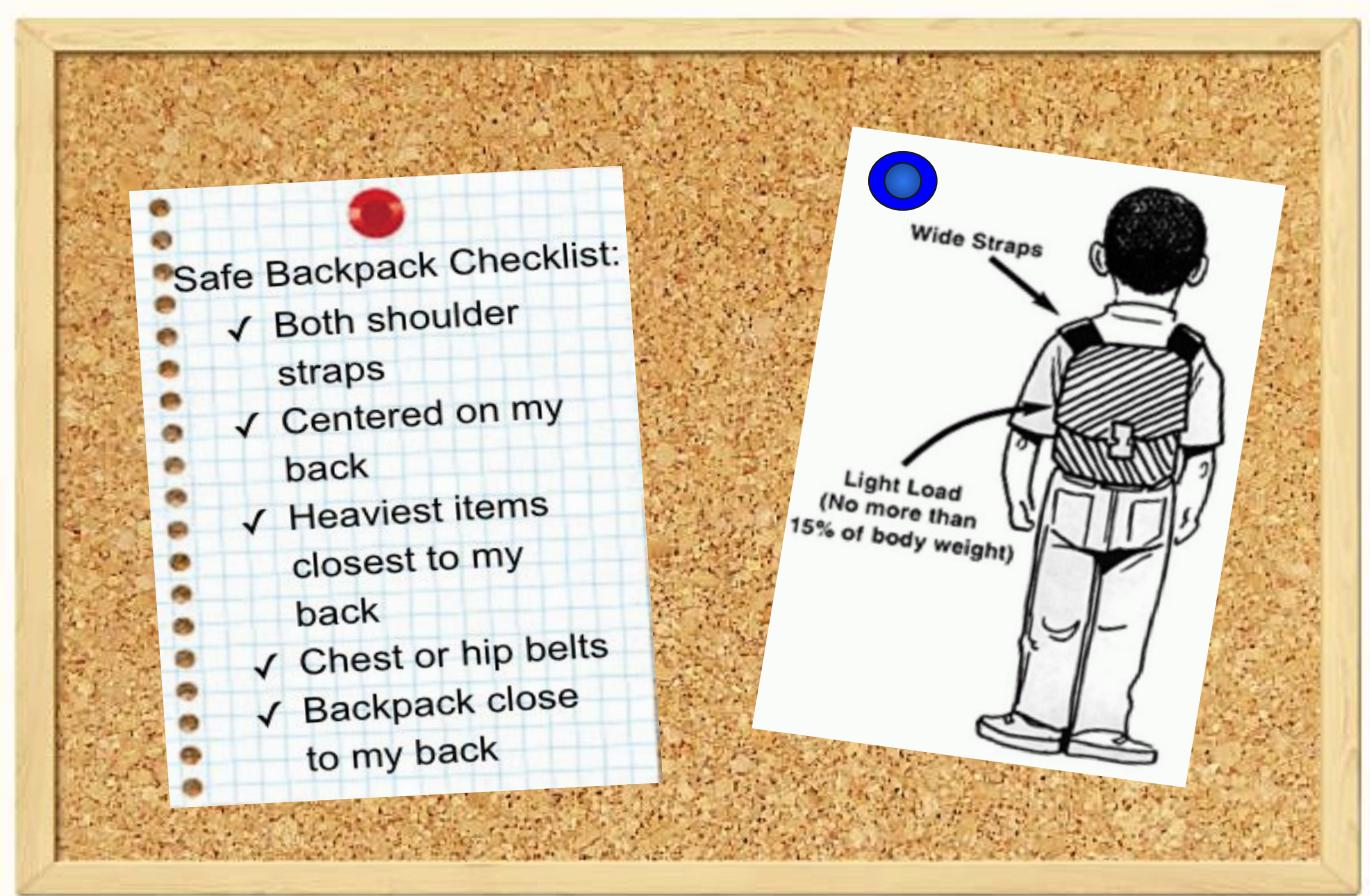
- There is a wide variety of bags and backpacks used by children in Panama
 - Focusing on backpacks with two shoulder straps
- A backpack that is too heavy can → postural malalignment, muscle fatigue, and impaired shock absorption
 - Wearing it correctly can improve postural symmetry and distribute the weight more evenly

Backpack Usage

- Signs the backpack is too heavy:
 - Struggling to take it on or off
 - Pain with usage or pain after use
 - Numbness or tingling, especially in the arms
 - Red marks
 - Noticeable changes in posture

Backpack Usage

- How to wear the backpack properly:
 - Use both shoulder straps
 - Wear close to your back
 - Hip and/or chest belts to distribute weight more evenly across back, shoulders, chest, and hips
 - Should be worn mid-back
 - Pack the heavier items closer to the back





THANK YOU!