

# Progressive Muscular Relaxation

KIN/HS 169

*“Relaxation is the direct negative of nervous excitement. It is the absence of nerve-muscle impulse.”*

—Edmund Jacobson, M.D.

Often, we must learn to relax...

## An Historical Perspective of PMR

- Edmund Jacobson was a U.S.-trained physician who noticed that all his patients with illness showed chronic muscle tension. He theorized that if muscle tension was significantly decreased, the chance for illness would diminish.
- PMR has proved to be a popular relaxation technique in the U.S. for many decades.
- It may be the only recognized relaxation technique created in the U.S.

## Bracing

- Unnecessary, unproductive muscular tension that often goes unnoticed. Examples include: driving, typing, writing, dentist visit!
- Can you think of others?

## Our Body's reaction to stress

- The body's muscles respond to thoughts of perceived threat with tension or contraction
- The cumulative result is stiffness and pain & in more extreme cases, it can distort and disalign posture and joint stability

## Muscle-to-mind relaxation techniques:

- Relaxation techniques designed to relax muscles, with the idea that if you relieve tension in the body the

mind will follow. Sometimes we are too stressed to slow our minds down first!

### Progressive Muscular Relaxation

- The body's muscles respond to thoughts of perceived threats with tension or contraction.
- Muscular tension is believed to be the most common symptom of stress, and can lead to:
  - stiffness, pain, discomfort, distorted and disaligned posture, and joint stability.

### Progressive Muscular Relaxation (continued)

- The building blocks involved in muscular contraction are a motor end unit, a motor nerve fiber (neuron), a skeletal muscle fiber, and a stimulus from the nerve fiber to the muscle fiber called an action potential.
- Chemicals released from these neurons are neurotrophic substances.
- Neurotransmitters secrete epinephrine, norepinephrine, and ACh to regulate and control muscle contraction.

### Progressive Muscular Relaxation (continued)

- Muscles can contract in one of three ways:
  - concentrically (shortening)
  - eccentrically (lengthening)
  - isometrically (no visible change in length)
- Muscle tension produced through the stress response is primarily isometric.
- Over time, muscles contracted isometrically can begin to show signs of shortening.

### Progressive Muscular Relaxation (continued)

- Progressive muscular relaxation is a systematic approach to relieving muscle tension.
- Based on the work of Edmund Jacobson, PMR is a simple technique used to promote rest and relaxation by systematically tensing and relaxing the body's musculature, from feet to the head.

### Benefits of PMR

- Decreases muscle tension
- As body relaxes, so does the mind

- People who use PMR have less health issues

### Steps to Initiate PMR

- Find a comfortable position.
- Begin by monitoring your breathing. Inhale when you contract each muscle group, exhale when you relax each muscle group.
- Focus your concentration on each muscle group as you work various regions of your body.

### Typical Phase for Each Muscle Group Using PMR

- First contraction: 100% @ 5–10 seconds
  - release and relax (exhale)
  - compare relaxation to contraction
- Second contraction: 50% @ 5–10 seconds
  - release and relax (exhale)
  - compare relaxation to contraction
- Third contraction: 5–10% @ 5–10 seconds
  - release and relax (exhale)
  - compare relaxation to contraction

### Progressive Muscular Relaxation

- Research indicates that anger elicits the greatest response of unconscious muscle tension. Progressive Muscular Relaxation is one of the best techniques to deal with symptoms of anger.

### Best Application of PMR

- Excellent way to reduce muscle tension
- Thought to be beneficial for people who quit smoking
- Avoid using in areas with chronic pain
- Avoid using if you have hypertension

Ahhh...that's better 😊