Good morning/day etc.

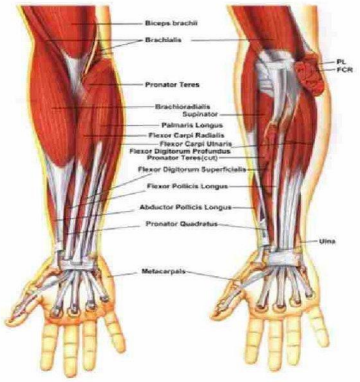
Focus in the Field

Basic Anatomy Hand and Forearm

Think About It

Why is it so important to protect our hands?

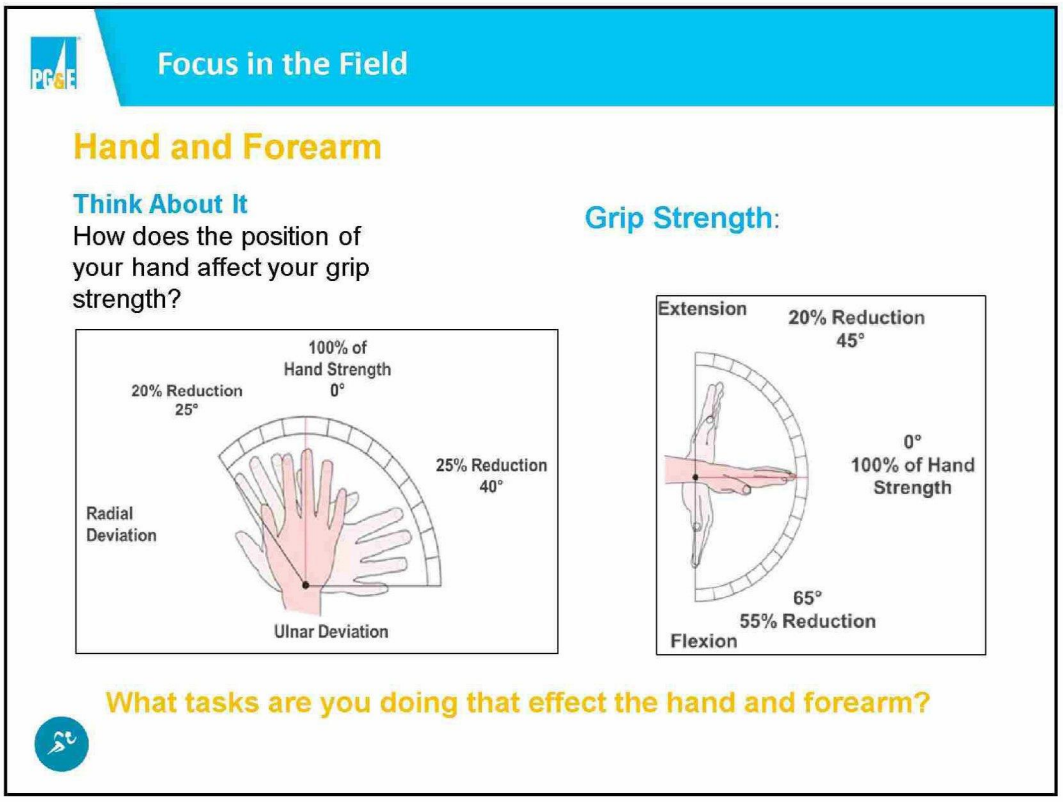
- Hand and wrist pain is one of the most disabling and irritating pain to suffer from, because we need our hands for everything
- Keep wrists in a straight handshake position. This reduces stress on tendons that attach at the elbow
- Working in poor wrist posture increases risk for carpal tunnel and elbow tendonitis



The hand and wrist are complex, consisting of multiple bones, joints, and nerves. The forearm also has many muscles that connect both above and below the elbow joint. As with most of the body, these areas do not work in isolation. When you are working with your hands, and forearms, other areas of the body are involved as well—shoulder, legs, core. Be sure to not perform repetitive, isolated movements whenever possible.

There are 3 major nerves that feed the hand, ulnar, median, and radial. Often people report, “my hand is numb”. If this is the case notice which fingers and/or part of the hand is feeling numb.

- The wrist is a complex joint that connects the forearm to the hand and includes 8 small bones
- The rest of the hand has another 19 bones, giving the hand and wrist a high degree of movement and flexibility
- The hand uses over 30 muscles to control movement of the bones and joints



When the hand is its most advantageous position—handshake position, the grip is at its optimum strength. Have the employees grip in the various awkward postures to feel the difference. If onsite and you have a dynamometer, ask for a volunteer to do this.

Additionally, as body parts do not work in isolation, if the core—abdominals, gluts, lats etc., are engaged when you are working with the hand and forearm you will have increased strength and protection of those joints. Try this, as an experiment to see the difference.

- Avoid awkward postures
- Your hand functions best in a neutral position as that is where tendons and muscles are most efficient

ASK and Discuss – What tasks are the workers performing in the field that effects the hand and forearm?

Neutral or Awkward?

In the examples above the employees have reduced the risk for MSD's by working in a neutral posture. In addition to doing this they could implement microbreaks, stretching, and counterbalance exercises. Additionally, job rotation, choosing the right tool for the job are important, and two-person assist if possible are other options.

Keep wrists in handshake position, this reduces stress on tendon that attach at the elbow, working in poor wrist posture increase risk for carpal tunnel and elbow tendonitis

Focus in the Field

Stretches – Why should you stretch?

Forearm Flexor Stretch

1. Stand tall in neutral posture with feet hip width apart. Extend an arm in front of you with fingers pointing **up** and palm facing out.
2. Grasp the extended fingers with your other hand and gently pull fingers toward you until you feel the stretch in your forearm. Hold for **2-3 deep breaths,** about **30 seconds**.
3. Repeat the same stretch with opposite arm.

Forearm Flexor Stretch

1. Stand tall with feet hip width apart. Extend an arm in front of you with fingers pointing **down** and palm facing out.
2. Grasp the extended fingers with your other hand and gently pull fingers toward you until you feel the stretch in your forearm. Hold for **2-3 deep breaths,** about **30 seconds**.
3. Repeat the same stretch with opposite arm.

ASK : Why should you stretch?

- Benefits of stretching
- Prevent injury
- Reduces muscle tension
- Helps coordination and range of motion
- Helps prevent discomfort and injuries (a strong, flexible, pre-stretched muscle resists stress better than a strong, stiff, unstretched muscle
- Feels good

Focus in the Field

Stretches – the importance of stretching

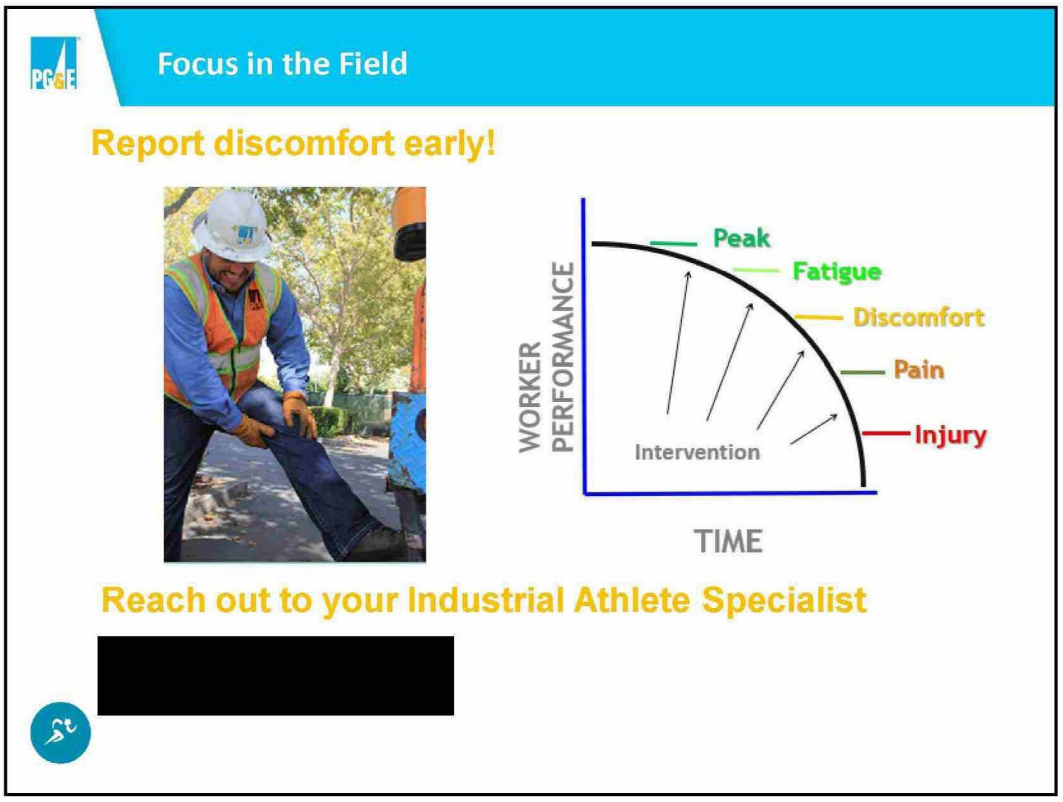
Palm Rotations

1. Stand tall or in a neutral posture and look straight ahead. Press palms together in front of chest and point elbows out to the side. Press through fingertips and heel of the palms
2. Spread your fingers apart and rotate wrist and hands away from the body and hold for **5 seconds**
3. Rotate wrist and hands toward the body and hold for **5 seconds**

Hand Pump Stretch

1. Let hands hang loosely at sides and stretch fingers out
2. Then slowly close into a loose fist. Repeat **5 times**

These stretches supports gripping objects and tools, increases flexibility and stretches the forearms and wrist. When would you use these stretches?



Report discomfort early! Contact your IAS! Why?

At the first sign of fatigue, soreness, tightness, dysfunction, irritation or other discomfort:

- Utilize resources such as the Nurse Care Line, Industrial Athlete Specialists, and other benefits to access support by professionals
- Be consistent with Stretch & Flex before, during, and after physical activity
- Appropriate use of rest, cold/heat, OTC NSAIDs, compression, soft supports, relief creams/patches, elevation, self-massage, and other conservative approaches
- Remember that work & non-work activities may be contributing to your issue; address schedules, physical activity variety, mental stresses, sleep, nutrition, and more affect your overall recovery