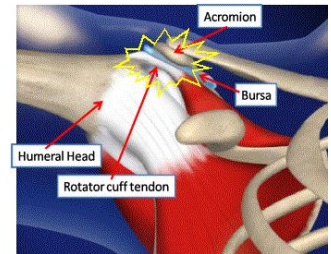


Shoulder Injury Prevention

The shoulder joint is a “ball and socket” joint that allows multi-directional movement. It sacrifices stability for mobility and because of this, it is more susceptible to injury. Most job demands require that at least 90% of the work is done with the arms out in front of the body. This sustained posture can lead to muscle imbalances over time, with tightness developing in the front muscles and weakness in the back muscles of the shoulder. If we don't know how to counteract these sustained forward arm postures to maintain good shoulder balance, impingement of the rotator cuff tendons can develop as a result.



Lifestyle Causes

- **Dehydration:** Healthy muscles are comprised of at least 70% water. Dehydration causes muscle fatigue, strain, tendonitis, and other disorders of the movement system. Soda pop is not water, it's liquid junk.
- **Poor Nutrition:** Eating too many “empty” calories that don't contain the nutrients our body needs is a primary cause of injuries and disorders of the movement system. Tobacco contains toxins that increase inflammation.
- **Inflammation:** Inflammation causes many lifestyle-related disorders, including heart disease and movement system disorders. Too much sugar and fat within our diet can contribute to inflammation.
- **Fatigue:** Adequate amounts of rest and sleep are very important ingredients for our health.
- **Poor Fitness:** Poor levels of physical fitness increases the risk of disease and injury.

*Prevention is a **shared** responsibility! The company is responsible for a safe work environment and procedures, and all workplace athletes are responsible for using their body properly and keeping their body fit for work.*



Ergonomics is about working smarter! An ergonomics improvement process is part of management's commitment to maximize efficiency and to limit worker fatigue and discomfort.

Proper warm-up & body mechanics will reduce daily fatigue and give you more energy left over at the end of the day! We are ALL athletes in life, so we need to warm-up like athletes to improve our performance and to reduce risk of injury. We should also plan to work smarter... not harder! Proper body mechanics should always be used to avoid excessive fatigue and injury.



Drinking plenty of water is one of the most important things you can do for your health! Healthy muscles are comprised of at least 70% water. Dehydration of the muscles and tendons is a primary cause of muscle fatigue, strain, tendonitis, and other disorders of the movement system. How much water do you need every day? Your Body Weight \div 2 = # oz. of water per day (Example: 160 pounds \div 2 = 80 oz. of water per day)

Healthy eating is one of the most important weapons that we have to fight against injury and illness. The foods we choose to eat determine what our bodies look like on the outside and how well our body functions on the inside. Eat fewer “empty” calories from dead foods, and eat more calories from living foods. Living foods include fruit, vegetables, nuts, and seeds. Living foods are harvested. Dead foods are processed and not good for you.



Adequate amounts of **rest and sleep** are very important ingredients for our health. When we don't get enough sleep, increased release of stress hormones raises the level of inflammation in the body. If rest and sleep deficits persist, we become more vulnerable to injuries and chronic diseases. Sleep experts generally agree that most adults require between 6.5-9 hours of sleep each day to maintain optimal health and safety.

We need to maintain our **physical fitness** levels to prevent injuries and illness. There's a correlation between poor levels of physical fitness and increased risk of disease and injury. The lower the level of fitness, the higher the risk of injury. Four types of exercise for your fitness plan: 1) Aerobic or cardiovascular exercise, 2) strength training, 3) stretching exercise, and 4) relaxation exercise.



Workplace athletes can use **ice or cold therapy** to control fatigue and soreness after activity. Ice application should be between 15 to 20 minutes applied directly onto the skin of the affected area. An initial aching will be felt when the ice is on the skin. After 5 minutes, this should go away as the ice takes effect. Ice is a great anti-inflammatory! Never use heat after activity.

Vitamin & mineral supplements are not a substitute for healthy eating, but they can fill in the gaps and help combat fatigue and inflammation. Experts recommend three daily supplements: 1) a quality multivitamin and mineral supplement, 2) a vitamin D supplement with calcium and magnesium, and 3) omega-3 fatty acids



Shoulder Stretching and Fitness Exercises

Shoulder Stretching Exercises: Perform 3-5 times per day



Support body using opposite hand. Gently swing arm in a circle (both directions) allowing gravity pull your arm downward. Use a 1-3 lb. dumbbell weight to increase the pull.



Stand with hands on the doorframe at shoulder level. Gently step forward with back straight, stretching the chest and shoulders. Hold stretching for 20 seconds, relax and repeat. Progressively move hands higher on door frame.



Grasp towel as shown in picture. Slowly pull upward until a gentle stretching is felt. Hold stretch for 20 seconds, relax and repeat.



With hand on door frame, slowly turn away from the doorway until you feel a gentle stretch. Hold for 20 seconds, relax and repeat.



With towel roll under arm as shown, gently pull one arm across your body with opposite arm until a mild stretch is felt. Hold stretch for 20 seconds, relax and repeat.

Shoulder Fitness Exercises: Perform 2-3 times per week



With arms at sides and palms facing forward, raise weights to side and then overhead. Slowly lower to the start position. Perform 2 sets of 12 reps.



With arms at sides and palms facing inward, raise weights to shoulder level by bending elbows, and then push overhead. Slowly lower to the shoulders and then to start position. Perform 2 sets of 12 reps.



Grasp dumbbell in one hand while supporting body with opposite arm, raise weight upward to near shoulder level. Slowly lower weight to the start position. Perform 2 sets of 12 reps.



Using a secured resistance band as pictured. 1) Pull arm up above opposite shoulder and slowly return to start position. 2) Pull down on band diagonally below waist and slowly return to start position. Perform 2 sets of 12 reps in each direction.

This handout is general injury and illness prevention educational information and is not medical advice. If the employee requires medical attention, a competent health care provider should be consulted. Although every precaution has been taken in the preparation of this information, no liability is assumed for injury, personally or otherwise resulting from the use of information contained herein.