Musculoskeletal Disorder in Central Sterilizing Departments
Welcome to Steril-cise:

Question: What is a Musculoskeletal Disorder?

Answer: According to Adams¹ “A musculoskeletal disorder is a condition where a part of musculoskeletal system is injured over time. The disorder occurs when a body part is called on to work harder, stretch farther, impact more directly or otherwise functions at a greater level then it is prepared for. The immediate impact may be minute, but when it occurs repeatedly the constant trauma can cause damage. The term musculoskeletal disorder identifies a large group of conditions that result from traumatizing the body in either a minor or major way over a period of time. It is the build up of trauma that causes the disorder. These conditions are often focused on a joint and affect the muscle and bone. However other areas can be strained and their response to that trauma can be an injury.”

Steril-cise is a program designed by the Centre for Healthcare Related Infection Surveillance and Prevention and Tuberculosis Control (CHRISP&TB) in consultation with Occupational Health & Workplace Safety Unit, Department of Health ii, private facility Central Sterilizing Department Managers iii, & Physical Instructors iv (4), to provide some knowledge on Musculoskeletal Disorders (MSD) and you some of the skills to prepare and condition your body to be fully equipped to handle the physical workloads and stresses in daily CSD work.

MSD is in basic terms the latest & a collective name for a number of more common terms such as Repetitive Stress Injury (RSI), Repetitive stress disorder (RSD), (also substitute stress for strain or motion), or Overuse Syndrome.

The United States Department of Labor, Occupational Safety & Health Administration has defined ergonomics as v “the science of fitting the job to the worker. When there is a mismatch between the physical requirements of the job and the physical capacity of the worker, work-related Musculoskeletal Disorders (MSD) can result.”

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CSD staffs, due to the “repetitive” nature of their work, are susceptible to MSD. Health technology improvements are assisting in reducing the lifting, pushing & pulling of heavy loads, along with Occupational Health & Safety (OH&S) / Workplace Health & Safety (WH&S) guidelines. Rotation through workstations also assists in reducing the repetitive nature of tasks; however MSD is built up over a long time and does not require the load or work to be heavy. So to combat this, the body needs to be conditioned & prepared to undertake the tasks required.

**Taking the First Step:**
The first phase of Steril-cise is to implement a stretching routine that can be performed at any time throughout the working day, as well as at home. These stretches are designed to relieve tension on already stressed muscles and joints. It is recommended that they be performed at least 4 times throughout the day (start of shift, twice during shift, end of shift).

**Second step, It’s Up To You!**:
The next part is up to you. As mentioned before, MSD’s occur when the body is doing something at a level that it is not prepared for. Consult with your local GP or Physiotherapist for specific exercises you can undertake that will strengthen and condition the muscles and joints you use as part of your daily work. In performing a regular exercise routine in addition to the stretches, you should find the impact of your work lessens and your duties become easier to perform. If you have any existing medical conditions or feel any pain or discomfort when exercising, please see your GP.

**How to Steril-cise:**
Always consult with your GP prior to undertaking any physical activities your body is not use to.

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**Stretches:** When stretching, you should never extend to the point where you feel pain. You should feel a gentle pull on the muscle, but you should always be comfortable. Jerky or bouncing movements should be avoided. Move the stretch to your comfortable limit and hold for 10 – 15 seconds and ideally repeat 2 or 3 times. Always remember to breathe as normal. Do not hold your breathe while stretching, the muscles need oxygen to perform the stretch effectively. If at any time, you feel any pain, discomfort, pins and needles or numbness while completing these stretches, please stop immediately and consult with your manager and/or appropriate health professional. These exercises/stretches are of a general nature. If you have any known injuries please seek advice from your healthcare professional regarding appropriate stretches/exercises for you.

**The Stretches/Exercises:**

**Shoulder Shrugs** - Slowly lift your shoulders up as if you were attempting to touch them to your ears. Lift as high as you can and hold for 10 – 15 seconds and then relax for 10 – 15 seconds. Repeat 2 or 3 times.

**Shoulder Circles** - Slowly roll your shoulders forward until you have gone as far as possible. Then move them toward your ears as far as possible and then back as far as possible. Then reverse the routine, starting from the rear and moving to the front. Each roll forward and/or back should take 3 seconds each. Repeat 5 or 6 times forwards and backwards.

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**Protracting and Retracting the shoulders** - While standing, slowly take your shoulders forward as far as possible, as if you were trying to make them touch one another in front of your chest hold for 10 – 15 seconds. Then take them back as far as possible, squeezing the shoulder blades together and hold for 10 – 15 seconds. Repeat 2 or 3 times.

**Tilt From Front To Back** - Tilt your head slowly back, far enough so you can look up. Hold posture for 10-15 seconds. Return slowly to a normal position then tilt forward to stretch the back of your neck and hold for 10 – 15 seconds. Repeat 2 or 3 times.

**Tilt From Side To Side** - Keep your face looking forward as you slowly tilt your head over to your shoulder. Don't go so far that you touch your ear with your shoulder. Hold posture for 10 – 15 seconds. Return your head to centre position. Move your head to your opposite shoulder and hold for 10 – 15 seconds. Repeat 2 or 3 times.
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**Rotate Head From Side To Side** - Slowly turn your head left as far as you can. Hold posture for 10 – 15 seconds. Return your head to the centre. Turn your head in the opposite direction and hold for 10 – 15 seconds.

**Ankle** – In a standing position, hold onto something solid that won’t move for balance. Lift the right foot and rotate the ankle for 8-10 seconds clockwise and then 8-10 seconds anti-clockwise. Repeat 2 or 3 times on each side.

**Upper Calf** - Take a step forwards and bend the front knee. Keep the back knee straight & heel on the ground. Make sure that both feet are pointing forwards. Stretch should be felt in the upper middle part of the calf. Hold the stretch for 10 – 15 seconds and repeat 2 or 3 times for each leg.

**Lower Calf**: now bend the back knee as well, whilst keeping the heel flat on the ground and both feet pointing forwards. Stretch should be felt in the lower part of the calf. Hold the stretch for 10 – 15 seconds and repeat 2 or 3 times for each leg.
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**Back of Thigh** - Take a step forward and bend the back knee. Put both hands on the thigh of the bent back leg to support the lower back and lean forwards until the stretch is felt in the back of the thigh on the straight leg. Hold the stretch for 10 – 15 seconds and repeat 2 or 3 times for each leg.

**Front of Thigh** - Stand on one foot, or use a partner for support or hold onto something solid that won’t move for balance. Hold the opposite ankle and bring the heel towards the backside but keep it pulled slightly away. Keep both knees close together to prevent twisting of the knee, and tilt the pelvis forwards. Stretch should be felt in the middle of the thigh and towards the hips. Hold the stretch for 10 – 15 seconds and repeat 2 or 3 times for each leg.

**Wrist** - Start with hand flat, palm facing the ground slowly rotate in a clockwise circle pivoting at wrist. Pivot in wide circles and rotate for 8 – 10 seconds. Repeat 2 or 3 times each hand.

**Top of forearm** - Start with hand flat and palm facing the ground. Gently pull hand down and towards the forearm and hold the stretch for 10 – 15 seconds. Repeat 2 or 3 times each arm.

**Bottom of forearm** - Start with hand flat and palm facing the ground. Gently pull hand up and backwards towards the forearm and hold the stretch for 10 – 15 seconds. Repeat 2 or 3 times each arm.
With thanks, recognition and reference to:


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