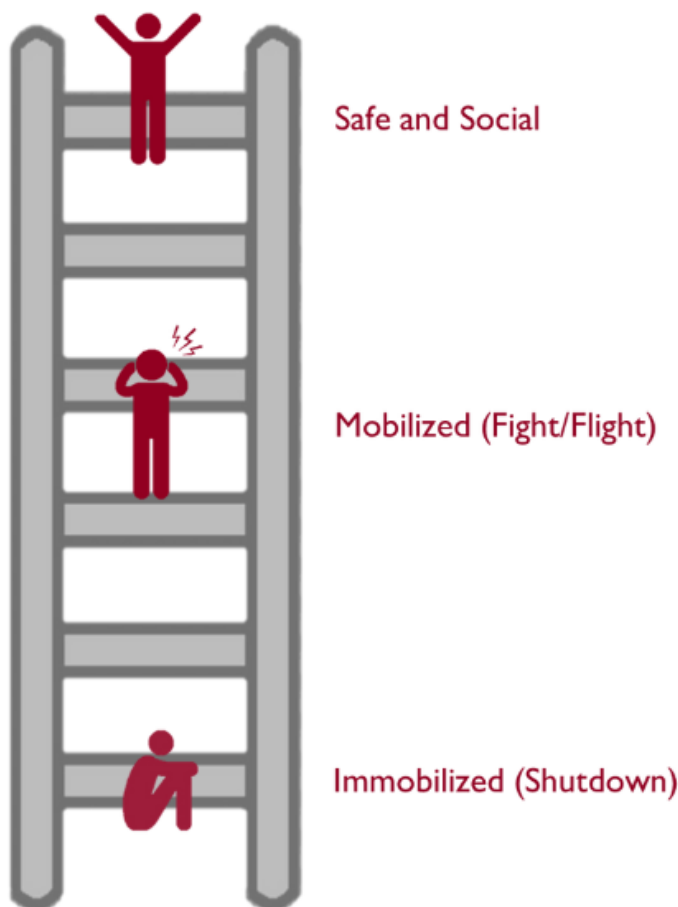


Arousal Regulation

Ever wondered why your body reacts the way it does in different situations? Why your heart races when faced with a challenge, or why you freeze up in moments of fear? Our body's nervous system scans our environment for cues of safety and danger and responds to these signals by moving us into one of three different states of survival to cope with the situation. We can think of these different states like being on different parts of a ladder.



The top of the ladder is our **safe and social** state. Here, we are connected to ourselves and to others. We are feeling hopeful and resourceful. We are able to receive and interpret cues of safety from others like a smile from a friend.

We move out of this state down the ladder when we start to perceive cues of danger or stress in our environment; this could be day to day signs such as a raised voice, receiving difficult news, arguing with partner, unpaid bills, or remembering past trauma. This is known as '**fight or flight**'. In this state, we feel alarmed, and hypervigilant.

When fight and flight doesn't work to move us in to feeling safer and less threatened, which could occur in situations of extreme fear or when a threatening and stressful situation is constant and we don't know how to escape it, we respond by **shutting down**. In this state we feel numb, disconnected from our bodies and from other people, alone and hopeless.

When the nervous system functions well it moves easily from one state to another, one minute ready to fight or flight, and the next resting and recovering. But for people who have experienced significant trauma, like many of the survivors CVT works with, their bodies have more extreme responses to stress and perceived danger, which affects their ability to regulate, and feel safe. They often get stuck in fight or flight or shutdown states.

CVT provides basic education to survivors about their nervous systems using this ladder metaphor. By doing this, they can understand how different activities can be helpful in moving them out of that 'stuck' state and restoring a flexible nervous system. These are activities you can do anytime to when you feel stressed or low on the ladder.

Arousal Regulation - Exercises

Diaphragmatic breathing

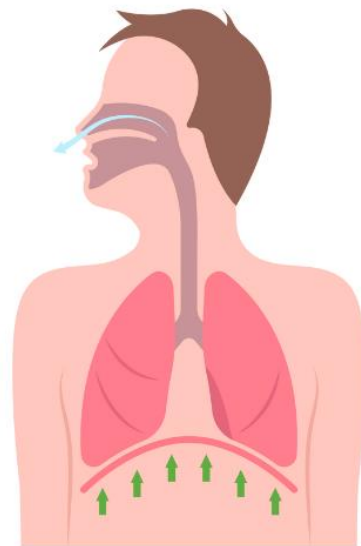
By deliberately changing our breathing to use our diaphragm, we slow our heart rate and relax our muscles. Diaphragmatic breathing is the quickest way to calm our nervous system when we are stuck in that fight/flight state when we may be feeling stressed or overwhelmed.

First, find a comfortable position sitting or lying. Place one hand gently on your stomach and one hand gently on your chest.

Inhale as smoothly as possible. Inhale through your nose and focus on bringing your breath into your stomach so your hand rises as your abdomen extends. You can imagine your stomach as a balloon filling with air as you inhale.

When it is full, allow your stomach to recede as you breathe out as smoothly as possible. Pause, and then inhale again, bringing air all the way down into your stomach. You should notice that with this type of breath, the hand on your stomach moves more than the hand on your chest. You may also notice your breath slowing down as they get deeper.

Continue breathing like this for at least five breaths and then notice how you feel after practicing.



Dynamic stretches

When we are stuck at the bottom of the ladder and feel flat and low in energy, physically moving our bodies, even in small ways, can give us boost to move up the ladder. One example of this is through dynamic stretching.

Dynamic stretching can be used to invigorate the body and provide that boost of energy. It activates the muscles and prepares the body for movement. There are many different dynamic stretching movements you can do. One example is arm circles.

Sitting up straight or standing with arms extended to the sides, rotating the arms in large circles forward and backward.

Do this for 1-2 minutes and then take notice of how you feel. You can do this simple exercise anytime you need a boost of energy.



Posture

Did you know that our posture can affect our emotions? Research has shown that certain postures can create specific emotional responses, and that adopting different postures can influence our mood and emotions. Our body and mind are connected and we can see the impact of one on the other. By changing how our bodies move and by changing our posture, we can provide important cues to our mind to help us change how we feel.

Power Pose

Stand up and put your hands on your hips and place your feet a little wider than hip width apart. Tilt your chin up. Just pause for a moment and notice how this feels. Now, walk around the room with this open and confident posture.

Now, keeping the same open and confident posture, sit down. Try sitting up tall, keep your arms wide and open. Similarly, keep your feet and knees hip width apart.

Now take another moment to pause and think about how this position affects your mood. You can do this activity when your mood is low or you need a boost of energy.



Sitting

By being aware of our body position, we can minimize stress on the joints and muscles, conserve energy and reduce pain. One important posture you can practice is sitting. If you are sitting for long periods and your chair does not have any lumbar support, try rolling up a small towel and resting it between your lower back and the chair. Your bottom should be at the back of the chair. Imagine your spine is in the shape of an S.



Next, if you are looking at a screen, try to avoid tilting your head down or up. Imagine a piece of string pulling you up from the middle of your head. Feel how this changes your posture. Keep your shoulders relaxed, try to align them with your ears.

Move your seat up or down until your legs are parallel with the ground and your knees are even with your hips. Your arms should also be parallel to the ground if they are resting on a desk. Your feet should be able to rest flat on the floor, and so if they can't, try adding a small box under your feet.

When you are sitting with good posture, your muscles engage and help to support your spine. However, even with good posture, it's important to avoid prolonged sitting and to take breaks every 20-30 minutes to stand up, stretch, and move around. This will help prevent stiffness and promotes good circulation.

Pain Management

Pain is not just a physical response. It is also dependent on psychological and social factors, such as our stress levels or how we feel about ourselves. Many factors affect pain, such as stress, emotional situations, memories, sleep, anxiety, relationships, personal thoughts, beliefs, and environment.

CVT physiotherapists ask survivors to reflect on their pain with the following questions:

- *Does your pain seem to be worse even when you are doing less?*
- *Is your pain worse after stressful days or when you are anxious or thinking about bad memories?*
- *Or what about when you have less sleep?*
- *Does your pain seem to change when you have other changes in your life?*

This helps them see that pain can change depending on other things going on in their life. To help survivors think about the different factors that make them more sensitive to pain, physiotherapist will use The Overflowing Glass activity.

The Overflowing Glass

Imagine a glass full of water. The glass represents our brain, and the water represents stressors that can make pain feel worse. Next to the water glass are red cups also full of water. These red cups represent stressors in our life, that when poured into the water glass, cause the glass to overflow, representing how stressors can pile up and make our body more sensitive to pain. But also on the table are empty blue cups that can remove the water from the overflowing glass. The blue cups represent the positive things in our lives that can diminish the stressors and thereby diminish our sensitivity to pain.

Sometimes stress and difficult things in our life make us feel pain or more pain. When this happens, one important thing to do as part of pain management is to try to minimize the red cups, those stressors in your life causing pain, and add some more blue cups, those things that can help improve your pain.

Blue cups: things that can improve pain

- Talking/laughing with my friends
- Feeling good after exercise
- Eating my favorite food
- A walk outside in the fresh air
- Watching my favorite TV show
- Statements such as “I am a confident strong person.”
- A good night's sleep



Red cups: things that can worsen pain

- Fear of movement
- Worrying about my body
- Worrying about my family
- Feeling sad thinking of memories
- Feeling socially isolated
- Feeling Frustrated
- Statement such as “my pain will never get better.”

Take a moment and use the worksheet on the next page to reflect on your red and blue cups, and how they might be influencing how you feel pain.



Reflection Exercise: *What are your red and blue cups?*

Red cups (things that worsen my pain)	Blue cups (things that improve my pain)