Extension and Function
Extension can offer improved outcomes that carry over to daily life. Just because we’re born in a fetal position doesn’t mean we have to return to it. Extension is vital for maintaining a healthy posture and yet so many of our exercises are focused on flexion. We focus on flexion for hips, backs, knees, elbows, shoulders, necks, etc. when we might provide clients with better function if we offered some focus on extension.

Here’s an example:
Begin walking backwards as you inhale for a few counts and exhale for a few. Each time you inhale, lift the crown of your head (your chin should push back and up, you’ll feel a stretch on the back of your neck). Relax your head/neck when you exhale. Continue lifting on the inhalation and relaxing on the exhalation.

Next, press your shoulder blades down during the inhalation and head lift. Relax everything during the exhalation.

Continue for at least 6 reps.

During the Extension and Function course we continue to add more extension to our movements and we leave the pool taller than when we arrived. Why do this?

Thoracic kyphosis and forward spinal flexion are extremely common musculoskeletal imbalances brought on by prolonged time in some postural positions learned through exercise and/or activity choices, environmental factors, myofascial dysfunction, pain, and psychological stress.

Health issues (minor to major) from forward flexion include:
• musculoskeletal aches and pains
• breathing problems
• limited function
• impaired athletic performance
• gastrointestinal upsets
• increased mental stress
• vision issue
• decreased organ function
• joint instability
• falls
• inability to move away from midline

Standing Extension
Standing extension is vital to bladder and bowel function. Bladder and bowel issues are integrally connected to standing balance and walking in children as well as adults. A child learns to accomplish upright standing and walking before gaining bladder and bowel control. A woman experiencing a high-risk pregnancy and placed on bed rest will lose bladder and bowel control within four weeks. An elderly continent individual placed
in long-term care for dementia related problems will most often be incontinent within three to four weeks if walking is not encouraged.

PNF Stretching
Besides using extension exercises, for all the above reasons, we will use PNF stretching first. This is to assist in full range of motion before attempting muscle repatterning. Proprioceptive neuromuscular facilitation (PNF) stretching techniques are commonly used in the athletic and clinical environments to enhance both active and passive range of motion (ROM) with a view to optimizing motor performance and rehabilitation. The literature sites PNF as the most effective stretching technique when the aim is to increase ROM, particularly in respect to short-term changes in ROM.

A summary of the research findings suggests that an 'active' PNF stretching technique achieves the greatest gains in ROM, e.g. utilizing a shortening contraction of the opposing muscle to place the target muscle on stretch, followed by a static contraction of the target muscle. The inclusion of a shortening contraction of the opposing muscle appears to have the greatest impact on enhancing ROM. When including a static contraction of the target muscle, this needs to be held for approximately 3 seconds at no more than 20% of a maximum voluntary contraction. The greatest changes in ROM generally occur after the first repetition and in order to achieve more lasting changes in ROM, PNF stretching needs to be performed once or twice per week.

The superior changes in ROM that PNF stretching often produces compared with other stretching techniques has traditionally been attributed to autogenic and/or reciprocal inhibition (although the literature does not always support this hypothesis). Instead, and in the absence of a biomechanical explanation, the contemporary view proposes that PNF stretching influences the point at which stretch is perceived or tolerated. The mechanism(s) underpinning the change in stretch perception or tolerance are not known, although pain modulation has been suggested.

Treatment Plan
We must first find the lack of flexibility, then apply PNF stretch to increase ROM. When ROM is compromised, extension to neutral cannot occur long term.

After ROM improvements re made we use the breath, coordinated with simple exercises, to train the patient and his musculoskeletal system.

Progressions are used to continually move the patient in the right direction. Not all progressions actually progress each patient so a mix of progressions will be used.

Come play with us!