

# **Band-ITS CORE**

**Created by Sally Harrison**



**A Strength Programme for Dancers**

# Band-ITS CORE!

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## WHAT IS THIS PROGRAMME?

This exercise programme is designed to be implemented in the dance studio using added resistance for the legs. It is a pre-designed strength and conditioning plan designed to provide a full body workout to challenge stability, strength, power and ultimately prevent injury.

## PRESENTER INFORMATION

*Sally Harrison* - Course development and educator

Sally was born and educated in the UK and commenced her professional career as a dancer based out of London. Following a sudden retirement due to knee surgery, she began her journey in physiotherapy and exercise rehab in 2002. It was at this time that she also qualified in Pilates and personal training. She works part-time in a clinical setting specialising in dance injuries and rehabilitation.

She also manages her own business, **Pro-align**, which integrates clinical Pilates with functional corrective exercise. She believes in movement-based treatment and empowering her clients with the knowledge to treat themselves and be independent in their bodies.

Sally has a strong passion for educating the dancer in how to create a strong body and prevent injury.

Her YouTube channel **strength4dance** provides dancers with what they need to know to start to understand how the body works, and what to do to create mobility, stability and strength for a lifetime of dance.

[www.strength4dance.com](http://www.strength4dance.com)

[www.band-its.com.au](http://www.band-its.com.au)

[www.pro-align.com.au](http://www.pro-align.com.au)

## WHY DO WE NEED TO TRAIN?

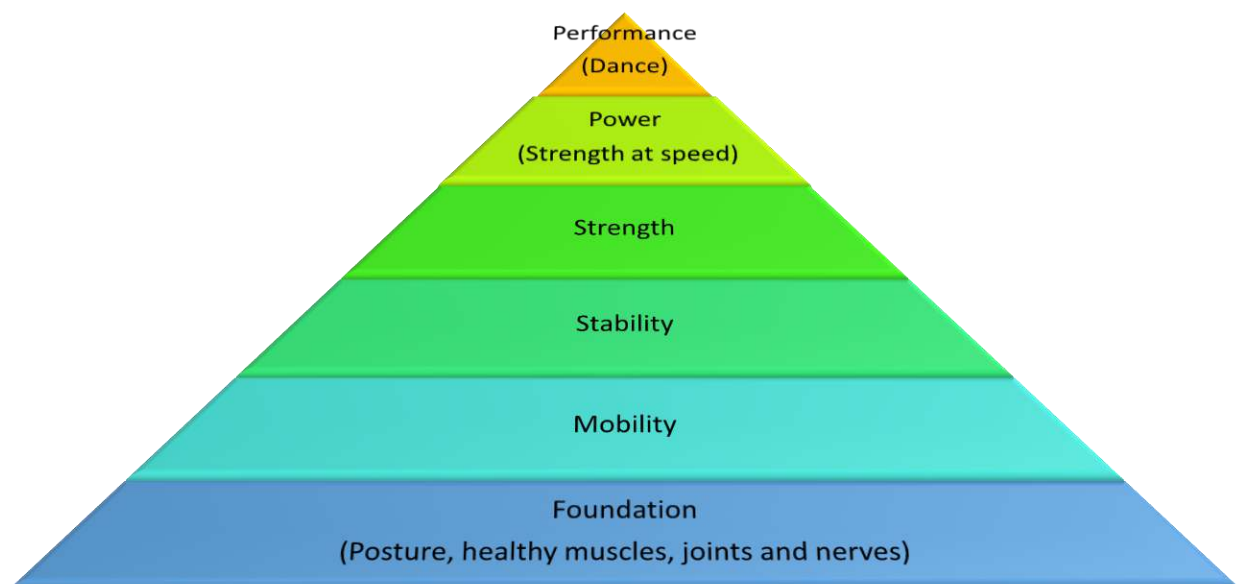
Just as sports athletes spend a lot of time cross-training for competition, it is equally important that dancers do the same. It is not enough for them to presume that they will gain enough cardiovascular (CV) or functional strength training from doing class alone.

Dancing is a highly skilled activity. It is a learned activity that requires many facets in working order to function harmoniously as a team. Facets such as strength, flexibility, balance and coordination. To be successful, injury free and able to adapt and cope with any new moves and choreography, the body needs to be trained from **base level up**.

The graph below outlines the stages that everyone needs to address to create a healthy, robust and injury free body. A body that can keep dancing for a lifetime.

This model provides a structure of progression for health and physical performance. By following the stages in order from the bottom and progressing at the appropriate time, it aims to minimize injury and maximize performance throughout.

This exercise programme aims to address stages 2, 3, 4 and 5 of the pyramid. Dance classes fall into the sixth category of performance.



Level 1 <i>Foundation</i>	<p><i>Healthy muscles, joints and nerves. Optimum posture and movement patterns</i></p> <p>Nutrition, respiration and hydration fit in this section to keep the body healthy at a cellular level and speed up healing and repair.</p> <ul style="list-style-type: none"> <li>Optimum varied healthy diet, good hydration, meditation and posture correction are methods to undertake for this level.</li> </ul>
Level 2 <i>Mobility</i>	<p><i>Optimum range of movement around the joints, muscle balance and symmetry, appropriate length and tension of the muscles</i></p> <ul style="list-style-type: none"> <li>Regular mobilisers/stretchers and releases. Physio and Massage can be useful in this stage to correct any asymmetries and muscle imbalance.</li> </ul>
Level 3 <i>Stability</i>	<p><i>Ability to maintain optimal alignment against internal and external forces both static and dynamic</i></p> <p>This covers core training, lower and upper limb positioning.</p> <ul style="list-style-type: none"> <li>Pilates and bodyweight functional training is good here.</li> </ul>
Level 4 <i>Strength</i>	<p><i>Movement pattern development. Create synergy between muscles and good neuromuscular connections</i></p> <p>The body always recruits strength to carry out activities. It is important to have the stability first, so the strength does not become an injury precursor. Strength training is different from muscle growth/hypertrophy, as it is concerned with neural adaptation, neuro motor control and creating good movement pathways.</p> <ul style="list-style-type: none"> <li>Train with bodyweight, like push-ups, or equipment like dumbbells or tubing. Emphasising correct alignment and recruitment patterning is important.</li> </ul>
Level 5 <i>Power</i>	<p><i>Strength at speed</i></p> <p>This is an area of training, and especially rehab, that is often overlooked. However, it is frequently the time when injuries occur, due to the strong acceleration and deceleration that dance requires.</p> <ul style="list-style-type: none"> <li>Plyometric and fast multi-directional training is important at this stage.</li> </ul>
Level 6 <i>Performance</i>	<p><i>Any activity!</i></p> <p>Walking itself is performance and requires good coordination on one leg and trunk rotational stability.</p> <ul style="list-style-type: none"> <li>Dance specific movements and choreography applying all the skills that have been learnt in the previous stages.</li> </ul>

## Adhering to the rules of overload and specificity in an exercise programme

When planning an exercise programme for dance, it needs to be structured and organised: inclusive of mobility, stability, strength and function.

We need to keep adapting and training to a higher physiological level, to have a body that is one step ahead. It must be able to tackle anything new thrown at it during class, rehearsal periods, performances and exams without premature fatigue and injury.

With all exercise training, whether cardio-vascular or strength, the rules of **overload** and **specificity** need to be adhered to. The body needs to be subjected to **stress** for it to change and improve. This is termed *overload*. The exercise always needs to be hard enough for the body to adapt and become more efficient. This is an ongoing cycle. The body is highly effective at adaptation, thus becoming very efficient at the new level of workload, so we need to continually challenge the body for us to improve.

Dancers often have poor physiological conditioning because of a high skill level resulting in good economy of movement. In a nutshell, dancing no longer puts a physiological stress on the body, meaning the overload principle no longer applies.

*Overload on this programme is provided with different band resistance levels.*

*Specificity* is simple. Train for the outcome. If you want to run fast, then practice running, not swimming. There is little carryover especially regarding skill acquisition.

Therefore, we want to consider exercises that are specific to the type of movement and strength required in dance. This means a strong, stable hip and pelvic complex. Good core and turnout control and dynamic control with the global muscles of the body working harmoniously as a team.

*Specificity on this programme is provided by exercises targeting a strong pelvis, hips, muscular endurance and toning and body weight work.*

## WHY THE CORE?

The hips and pelvis are one of the 3 big rocks of movement. The others being the feet/ankles and thorax. A stable pelvis is essential for efficient energy transfer to the lower limbs, up to the thorax and subsequently the upper limbs. Due to their close relationship, hip and pelvic stability and control are reliant on each other.

Hip and low back injuries are common within the dance population. The very nature of dance requires high levels of flexibility and control, which in turn needs special attention to relevant stability and strength training.

This programme takes the appropriate repertoire from the worlds of mat Pilates, physio rehab and functional strength training exercises from the gym setting. It provides a full exercise programme in the one venue: the dance studio.

### What is involved in the Core workout?

Warm up and targeted mobility, followed by a graded exercise programme to challenge strength and stability for the hips and pelvis, using body weight and lower limb resistance bands for extra challenge.

The programme includes training for the core, posture, turnout and overall body strength. Exercises focus on both small isolated muscles groups, such as the deep hip rotators, and then integrate them into bigger movements requiring the global muscle system.

As with the Pilates method, the 'Core' repertoire includes a mixture of both isometric and more dynamic muscle activity based on endurance and higher repetition rather than heavy load. The focus is on improving neuromotor programming and efficiency of movement rather than muscular hypertrophy.

## What are the pros and cons?

### Pros:

- Smaller movements with lower load help to strengthen muscle and fascia while reducing the risk of tissue damage and bulking.
- Good for endurance training and type 1 muscle fibre recruitment.
- Enhance posture, core strength, hip and pelvic control.
- Strengthen arms and shoulder control with floor work (L4).
- Good for neuro muscular and mind body connection.
- Can be easily performed in the studio with minimal equipment and cost.

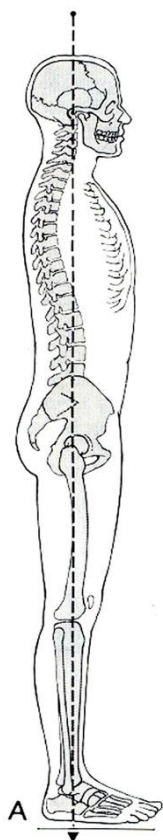
### Cons:

- Low CV benefits and EPOC (post-exercise oxygen consumption). The jump section is only a small part of the programme.
- Improvements may plateau early, so it requires constant increase in weights or variation in movement patterning and complexity.

These Core classes form a perfect addition to part of a balanced workout programme. Remember the body thrives on variation and new activities, so combining this rehab programme with other sessions such as running, skipping and full body loaded movement training would be an ideal combo!

## ANATOMY FOR CORE

### POSTURE



We want to start the exercises in a centred *neutral* alignment. Finding centre means offloading joints, ligaments and allowing optimal recruitment of stability muscles in mid-range.

Standing posture is often viewed and measured in sagittal plane. From side on, correct anatomical alignment is referred to as *plumb line*. This imaginary line runs down the side of the body from the tragus of the ear (cartilaginous flap) through the mid-shoulder, hip, knee and front of ankle.

- The pubic bone and front pelvic bones form a flat, vertical *bony triangle*.
- The breastbone rests directly over and in line with the pubic bone.
- The shoulders are *broad* and lightly placed.
- The knees are soft.
- The feet face forward and in tripod alignment.

This spinal stack needs to be mastered when training in all the positions in this programme.

### BREATHING

Breathing is the foundation of life. It is also the driver of the core. Breathing alone is not enough; however, it is important how we breathe. It is preferable to nose breathe, both at rest and during exercise.

Nose breathing and calm diaphragmatic/upper abdominal breathing stimulates what is referred to as the parasympathetic nervous system. This system feeds into our *calming* mechanism. It lowers blood pressure, slows heart rate, aids digestion. It also warms the breath before it enters our respiratory system.

Mouth breathing and upper chest breaths feed into the sympathetic nervous system. This aids our flight and flight response, by increasing heart rate, blood pressure and reducing digestion.

It is also important to avoid forced exhalation as this encourages gripping around the upper abs and prevents relaxed diaphragmatic breathing and core control. Diaphragmatic breathing is essential for core activation.

## THE CORE

Core stability and core training are in the forefront of exercise and manual therapy at present, but what is core stability really?

It is not about having a washboard six-pack, holding a plank for 2 minutes, or doing 500 versions of sit-ups in class.

The core is actually far more subtle; it is more powerful and vital in movement control and spinal health than most people think.

What constitutes *the core* is still under debate. Some feel it encompasses the brain through to the spinal cord: the full trunk region. Others feel it is the whole body, due to the continuous linkages of all muscles, fascia and nerves to one another.

For the sake of this section, I refer to the core as the mid-section of the trunk between the ribs and pelvis.

The core, or **inner unit**, is composed of 4 main muscles that interconnect and work together in harmony to form a corset style protection for the trunk region.

These muscles are comprised of:

1. the Diaphragm  
(which leads core activation)
2. the Pelvic Floor
3. Transverses Abdominis
4. Multifidus

When working together these four components form a barrel shape and enclose the abdominal cavity.



These muscles are endurance/tonic muscles and work at a low level over a long period of time.

The inner unit muscles are concerned with increasing joint stiffness and segmental stability, and they provide a good solid base for the outer unit muscles to work from.

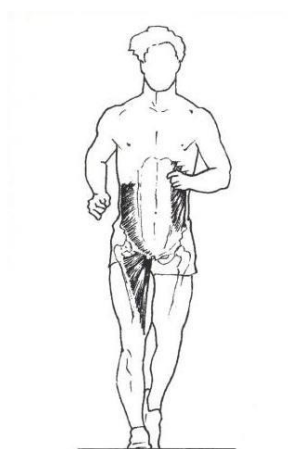
The outer muscles, or **outer unit**, are predominately phasic muscles. They are stronger and work over a shorter period of time to bring about bigger more dynamic movements.

These muscles merge into one another, interconnected with a tissue called fascia. Muscle and fascial relationships (myofascial) exist throughout the body, some of which are referred to as *slings*. Some slings of muscles work together to stabilize the core/pelvis. This allows good energy transfer through the system and allows us to move in spiral and diagonal patterns with ease.

Although the outer unit muscles are important in movement, they also have a role to play in stability and protecting the inner unit from damaging overload.

The sling systems we will address with our exercises are:

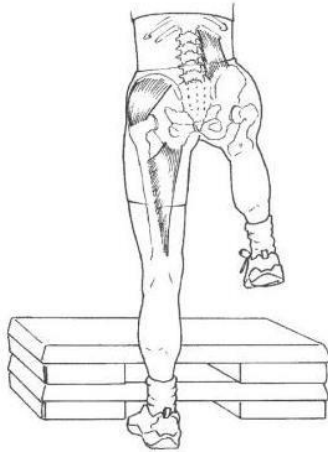
1. **Anterior Oblique sling** (inner thigh, internal obliques, abdominal fascia to opposite external obliques)
2. **Posterior Oblique sling** (lats to opposite Glute Max via compression of thorocolumbar fascia)
3. **Lateral** (Glute Med and inner thigh to opposite Quadratus Lumborum)
4. **Posterior Longitudinal (deep longitudinal)** (paraspinals, thorocolumbar fascia, Long Dorsal Ligament, sacrotuberous ligament, lateral hams and long peroneals)



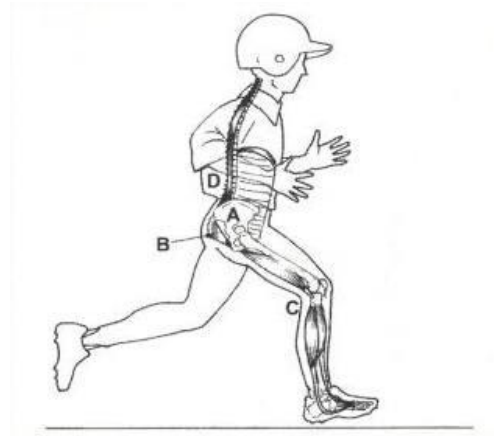
Anterior Oblique  
Sling



Posterior Oblique  
Sling



Lateral Sling  
(ipsi or contra)



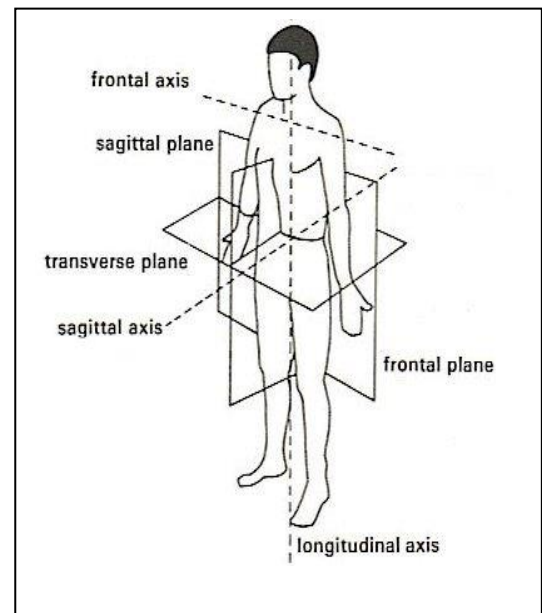
Posterior Longitudinal  
Sling

*Bracing* and creating a *rigid middle* is useful when lifting, in partner work for example or performing push-ups, but true core support needs to be dynamic and respond to continuous movement and dynamic positioning. We need movement AND stability... *mostability* (Gray Institute).

## PLANES OF MOTION

Every movement occurs in a directional plane.  
There are 3 planes of movement:

- Sagittal (forward/back)
- Frontal (side to side)
- Transverse (rotational)



All movement, especially dance, incorporates all 3 planes of motion. It is therefore important to train the body in all planes of motion and not isolate a movement in one direction.

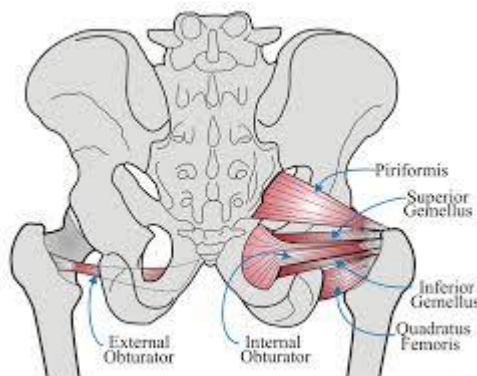
It is important to remember that the muscles have a rotational component to them and are not attached in a linear up-down fashion. It makes sense then to move and contract in different directions. This also applies to our stretching which should be tri-planar (3 planes) in nature.

The body craves variability in movement for healthy tissues (muscle, nerve and skin), so it is essential that we create strength in as many directions as possible.

## TURNOUT

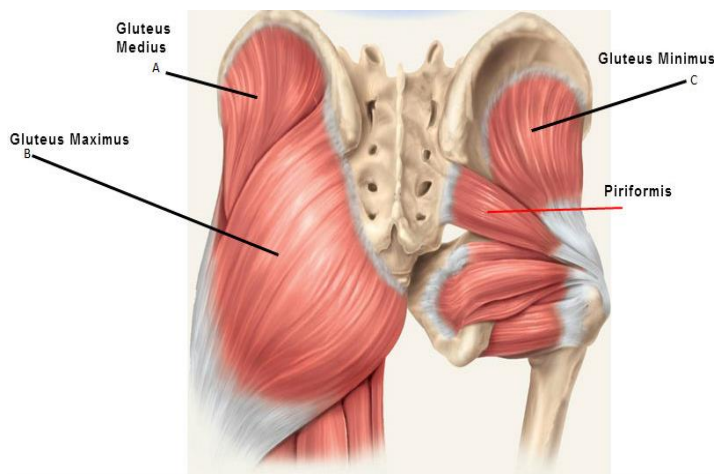
As dance has a strong emphasis on turnout as a primary position, it places the hip in a less optimal position for its muscles to work as designed. They are in their shortened range and so do not get the chance to fully lengthen and *stretch*. This reduces pre-loading and force creation.

Turnout needs to be controlled by the deep hip muscles, as opposed to the outer more global muscles of the hip.



The deep hip rotator fan consists of:

- Piriformis
- Obturator Externus and Internus
- Gemellus Inferior and Superior
- Quadratus Femoris.



The more global muscles consist of:

- Gluteus Maximus
- Gluteus Minimus
- Gluteus Medius
- Tensor Fascia Lata.

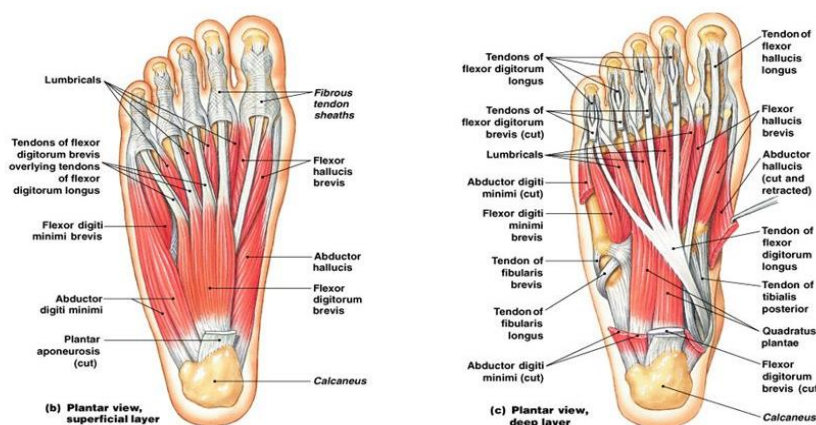
If Gluteus Maximus is the prime muscle used for turnout and stability, it will compromise the position of the femoral head. The Gluteus Maximus is a strong hip extensor, and on a planted foot it will act to posteriorly (backwards) tilt the pelvis and drive the hips forward. Therefore, it is essential that hip turnout comes primarily from the deep hip group. This is so the global muscles can then function to work to stabilize the pelvis and hip in more challenging positions, such as on a one-leg stance, squatting or work en arrière.

## THE FEET

As with all forms of physical training we want to achieve a mobile, dynamic and yet stable foot.

In most standing positions, we will be aiming for *tripod* foot alignment with the ability to pronate and supinate effectively with movement.

## The Intrinsic Muscles of the Foot



The dancing foot needs to have good activation and strength of the intrinsic muscles of the foot. A pointed foot should have a strong well-formed medial and transverse arch, but lengthened toes. Repetitive scrunching of the toes can lead to overuse problems in the tendons of the long toe flexors (Flexor Hallucis and Digitorum Longus). Symptoms can present as posterior impingement of the ankle.

Lengthened toes should also be seen when in demi-pointe for the same reason. Flexor Hallucis Longus can be subject to excess stress if overworked in demi-pointe, as it is a primary stabilizer working eccentrically to control lowering.

As healthy muscles and collagen are developed with rhythmic motion, sustained rises (demi-pointe) should be used with caution due to alteration in blood flow to the tissues. We want to maintain good hydration and blood flow which is a direct result of rhythmic movement.

It is important to remember that in turnout positions the hips will control the position of the feet, and there is no need to focus on lifting the medial arch of the foot. This is especially true when performing a plie/bend of the knee. The foot should be allowed to pronate naturally during a plie or fondu motion.

## Foot Work Exercises



### Doming

This isolation exercise works the small muscles of the foot (intrinsic). Start in tripod foot position and press the pads of the toes down into the floor. There should be a lift in both the medial and transverse arches of the foot.

Ensure the ankle remains in neutral and the toes are long with no scrunching.

### Articulation: Pointe via Demi-Pointe



This is the first part to work on foot strength and articulation. Start with the ankle dorsi flexed. Plantar flex the ankle keeping it in neutral. The toes will be extended still as if in demi-pointe. Elongate the toes into a full pointed foot. Ensure the toes remain long and do not curl under and flex at the distal joints.



The second part is to repeat this drill in standing.

This foot articulation forms the basis of a tendu, and when the foot *peels* off the floor into a retire/piqué/glissé.

## GENERAL WATCH POINTS

Throughout this programme modifications may need to be made to cater for each individual and their abilities. As with all training programmes quality of movement is key over quantity. There should be no experience of pain with any movements.

Always teach the exercises from the easiest version first and allow clients to stay at this level before progressing.

The exercises may need to be *chunked down* further to a more basic level and then built up over the course of the programme.



## HOW TO APPLY RESISTANCE EFFECTIVELY

### Lower limb straps

The leg straps have 5 different options:

- Yellow - easiest
- Red - easy
- Green - moderate
- Blue - difficult
- Black – extreme.

Ensure the leg straps are on tightly with the clips on the outside of the thighs.

For a comprehensive training session, you will need to vary the resistance for different types of exercise. Start with the lightest and then progress.

### Myofascial release ball

**Size:** a larger ball will be gentler on the system, like a massage with the palm of the hand. A smaller ball will be more targeted, like a fist or thumb. Both will have a positive effect on the system as long as you can remain relaxed and breathe deeply.

**Texture:** as the body is soft and fluid based in nature it is advisable to use a softer ball. A ball with a tacky surface will also be able to traction the fascia more easily and create a better release. A gentle approach to the body often yields a more powerful response.

## LEVEL 1 RELEASE

### General Aims

- To create space in the joints.
- Lengthen the myofascial connections.
- Reduce unnecessary tone in the muscles.
- Allow improved gliding of the nerves.

### General Watch Points

- Mobilisers: allow movement of the bones. Don't block or restrict motion. Feel the tissues react to the movement of the skeleton.
- Nerve glides: avoid shooting or referred pain, pins and needles or discomfort. The glides should be pain free.
- Muscle tension release: only gentle counter pressure is required against the body. Pause and then move to the next mild stretch point. End range tension is not required.
- Ball releases: melt into the ball and wait for a release in the tissue. When moving think of sheering one layer of tissue upon the next. Do not rush. Use a soft ball to match your soft tissues.

### Content

- Floor work
- Muscle release
- Kneeling
- Ball releases
- Nerve glides
- Standing work.



### 3D pelvic tilts

- Start in spinal stack/centre with middle pelvis, thorax and head on the floor.
- Tilt the pelvis forward and back in sagittal plane focusing on the bones moving and not gripping with the muscles of the hips or abdomen.
- Tilt the pelvis side to side in frontal plane allowing one waist to lengthen and one to shorten.
- Work into rotation of the pelvis allowing one side to float up as the other lowers to the floor. Transverse plane.
- Always work with the bones of the pelvis moving and not forcing with muscles action.



### Hip mobility

- Start with the feet wider than the hips.
- Slowly lower one knee in towards midline and feel an opening in the back of the hip. Keep the pelvis level.
- Repeat with the other side using the breath to release.
- You can rotate both legs in together and then add the pelvic tilts again in all 3 directions.
- Ensure there is no pain in the knees.



### 4-point offset sit back

- Start with one knee and the matching hand slightly further forwards.
- Take the pelvis back towards the heels. Keep the sits bones wide and fold into the front of the hip crease.
- Keep travelling backwards and avoid leaning to one side.
- Repeat on both sides.



### Adductor mobility

- Start with the knees wide on the floor and feet behind the knees.
- Float the pelvis back towards the heels keeping the sits bones wide and spine long. Use the breath to relax into the inner thighs/groin.
- You can add a small 3D pelvic tilt at the end of range.



### Hold relax

This exercise increases range using neuro motor release. We want mild contraction for about 3 seconds and then increase range to the next point of stretch as you exhale. Repeat about 3 times.

- Glute Med bias: place one ankle over the other knee, allow the knee to open. Keep the pelvis level and bend deeply into the hip crease.



- Piriformis bias: cross the knees over each other and pull closer to the body. Rotate the top leg towards you.



- Quads/Rec Fem bias: slowly pull to foot towards the hip. Ensure you avoid sinking into the front of the hip. Keep the Glutes relaxed.



- Hamstring bias: draw a straight leg in towards you until the first point of stretch. Keep the pelvis level and avoid hiking. Repeat this stretch with the leg internally and externally rotated to elongate all of the posterior leg. Keep the toes pointed to avoid neural tension.



### Kneeling hip flexor

- Start with the knee, hip and arm inline. Reach up high to elongate the muscle track at the front of the body.
- Add in some arm drivers in 3D.
- Keep the movement slow, hold for a breath and elongate.
- Don't squeeze the Glutes or push the hip forward in the socket.



### Kneeling adductor

- Place the lead leg out by 45°.
- Add a small backwards tilt of the pelvis driven by the pubic bone.
- Alternate either side with mild connection on the band.



### Kneeling hamstring

- Take the hips back towards the heel. Travel in a straight line or towards the extended leg. A flexed foot will tension the nervous system so watch for no pins and needles.
- You can then rotate the leg in and out to catch the whole back of the leg.
- You can also move back and forth from the hip flexor to the hamstring stretch.



### Nerve glides

- Sciatic nerve bias: flex the foot and pull an extended leg towards you. Find a point when the stretch is tight.
- Flex the knee to release the stretch.
- Then stretch the knee and point the foot. This should also release the stretch.
- Ensure no shooting pain, tingling or numbness is felt.
- We want to floss this movement back and forth.



### Ball releases

- Place the ball on the belly of the muscle to be released. Start with a sustained hold and melt. Invite the ball into the muscle. Wait for a sense of release.
- Another approach is to roll along the belly of the muscle.
- Roll across the belly of the muscle.
- Pin the ball and then move the limb. Feel the lengthening of the fascia under the ball.
- The big ball can be used under the abdomen to release the diaphragm.



### 3D Pelvic tilts

- Start in spinal stack, feet parallel.
- Allow the pelvis to tilt forwards in sagittal plane. Relax the low back and feel the abdomen open.
- Tilt the pelvis backwards. Relax the back of the hips and drive the movement from the pubic bone.
- This sagittal plane tilt will pivot through the hip joints.
- Tilt the pelvis in frontal plane allowing knee flexion to drive the pelvis into a drop on one side and hike in the other. Keep the weight through the feet the same.
- Work into transverse plane, rotating the pelvis right and then left around a centre point. Keep the knees straight and shoulders facing forward.
- Finally move the pelvis to each side in a shifting movement. Keep the pelvis level and knees straight.



### Hip opening

- Step to the side with the foot fully internally rotated and take weight through the foot. Drive the pelvis in frontal plane and keep the spine long.
- Come back to centre and repeat the motion but with the foot externally rotated.
- Keep the movements rhythmic and focus on the motion in the hip joint.
- Move back and forth between the 2 movements and then swap to the other side.





### 3D dynamic mobility

#### Sagittal plane

- Start in spinal stack/neutral.
- Step forwards with the left leg and drive both arms up to the ceiling.
- Allow the rear heel to lift and cue the bones to move.
- Return through centre and step back with the left leg driving the arms back and behind.
- Allow a curve of the spine as the arms drive overhead (arms internally rotated).
- The foot can be flat or lifted on to the heel.

Repeat this movement forward and back with rhythm, and don't push into the end of range. Repeat on the other side.



#### Frontal plane

- Step to the right keeping the feet parallel.
- Allow the pelvis to continue shifting to the right over the weightbearing leg. The arms will move in the opposite direction.
- Keep the trail leg straight and feel the lengthening and deceleration in this adductor.
- Spring off this bent leg and step across the body to the left, crossing over the left leg. The arms will move in the opposite direction.
- Allow the pelvis to shift over the lead leg again so it comes past both feet.
- Move back and forth between these 2 positions in a rhythmic manner.
- In this example the left hip is mobilised into abduction and then adduction. We also get functional loading of the outer hip muscles.



### Transverse plane

- Start facing forward with both feet parallel. Take a step with the right leg on the open diagonal to the back corner, and return. Allow the arms to move in the same direction at shoulder height.
- The trail leg will open into external rotation as a result. The trail knee can be straight or bent but the lead leg foot needs to face the direction of movement.
- Move in the opposite direction with the right leg stepping across the body to the opposite diagonal. Again, the arms will travel with the leg.
- The hip of the trail leg is now in internal rotation with the foot supinating. Repeat in this direction.
- You can then move back and forth in transverse plane from open to closed. Keep the trail foot facing forward and in tripod.

## LEVEL 2 ISOLATE

### General Aims

- Train the smaller stability muscles of the hips
- Connect with the deep muscles of the abdomen
- Train the outer muscles of the hips
- Strengthen endurance with higher reps and holds.

### General Precautions

- Ensure the hip remains centred in the hip socket
- Watch for excessive gripping of the outer abdominals.

### Areas to be trained

- Deep hip rotators (hip stability)
- Glute Med and Min
- Glute Max
- Abdominal core and Ilio-psoas (pelvic stability).



### Deep hip rotators

#### Side lying heel press

- Start with the hips stacked, long neutral spine, heels together and knees at 90°.
- Gently press the top heel down on the bottom heel and hold for a minimum of 5 seconds.
- Feel for mild tension in QF (Quadratus Femoris).
- Ensure the other muscles around the hip remain soft.



#### Prone heel press

- Start on your front, knees slightly apart and bent to 90°, heels touching.
- Apply a gentle pressure of the heels together and hold for a minimum of 5 seconds.
- Ensure all other muscles of the hips and legs are soft.
- Repeat at least 10 times.
- Compare the activation of both hips (timing and force).
- You can do one leg at a time or both together.



#### Heel press with ball

- Side lie heel press can be done with the ball between the knees.
- This puts the muscles of the hip in more of a mid position making it easier to activate.



- The ball can be placed under the heel of the upper leg.
- Apply gentle pressure down through the ankle.
- This works the hip in neutral.



### Side of hip – Glute Min and Med

#### Clam

- Start with the hips stacked and at 45°, spine neutral and heels together.
- Press the top heel down to initiate the deep hip stabilisers
- Roll the hip back in the socket. The knee will lift as a result.
- Keep the pelvis still and movement small.
- Keep the other muscles of the hip relaxed.



#### Leg lift – outer hip

- Maintain a neutral spinal stack. The underneath leg can be bent for stability.
- Lift the top leg up keeping it in line with the trunk.
- Aim for at least 20 reps.
- Variations can be performed – internal rotation or external rotation – to bias different parts of Glute Med, and a full height 10 seconds holds for endurance.



#### Leg lift – inner thigh

- Start with both legs straight and in line with the body.
- Hover both legs to hip height.
- Lower and lift the underneath leg. Focus on moving from near the groin.

### Double leg lift

- Start with the legs straight and in line with the body. Hover both legs off the floor using the side of the hips and upper waist.
- Maintain a small window of space in the underneath waist.
- To add challenge, add arm drivers in 3D. Move the arm side to side (Frontal plane).
- Move the arm forward and back (Sagittal plane).
- Move the arm across and behind (Transverse plane).





### Clam with the ball

- The clam can be performed with the ball between the knees.
- Alternate between a leg lift and a knee press to work the abductors and adductors.



### Back of hip

#### Glute Max

- Start lying on your front with the legs relaxed, toes in and heels out if possible. Pelvis level and spine long and relaxed.
- Squeeze one Glute and then the other. Check you can alternate Glute activation easily.



### Bent knee lift

- Bent the knee to 90° and hover the thigh off the floor.
- Start the motion from the Glutes then the hamstrings.
- Keep the pelvis level and still.
- Place the hands in front of the hips and check that they stay centred and don't shear forward.



### Long leg lift

- Hover a long leg off the floor leading from the Glutes first.
- Keep the pelvis still and feel for no sheering in the hip joints.
- Add a variation with hip external rotation when the leg is lifted using the deep rotators.



### Heel press

- Start on the back in neutral spine with the knees bent and toes lifted.
- Press the heel into the floor. Feel for a connection between the heel and the low Glutes.
- Keep the hamstrings relaxed.
- Vary the leg position if needed.

1.



2.



3.



### Core and deep hip

- Start with the knees parallel and spine long. Use imagery to think of the hip sinking back into the socket. Avoid activation of the outer hip or waist muscles. Hold for 5 seconds and repeat 10 times. There are many different cues that can be used (refer to the video).
- 1. Apply the hip suck and deep tummy cue then allow the knee to fall out to the side. Return the knee to centre and repeat. Keep the pelvis level and bones heavy. No gripping with the outer tummy muscles. Aim for 10 per side.
- 2. Apply the hip suck and tummy cue and float the knee to stack above the hip. Lower again with your next exhale. Keep the pelvis level and outer abdominals relaxed. Add a hand press to the inside of the knee with the opposite hand to activate the AOS (Anterior Oblique Sling).
- 3. Add a second knee float to tabletop. Move the second leg on the exhale. The outer abdominals will activate now to support the deep core. Ensure the spine and pelvis remain stable and the low back keeps a small natural curve.

## LEVEL 3 **INTEGRATE** – Floor based

### General Aims

- Combine movements together
- Connect the dynamic slings which support the hips and pelvis. AOS (anterior oblique sling) POS (posterior oblique sling) LS (lateral sling).

### General Precautions

- Maintain pelvic stability and ease of movement
- Ensure no pinching at the front of the hips.

### PART 1

- Bridging series
- Core and lower abs
- Upper abs and full spinal control
- Retire series
- 4-point kneeling series
- Prone series.

## Bridge series



- Start with the heel press connection from the previous section and then lift the hips into a bridge. Keep a long neutral spine and avoid rib flaring. Focus on the Glutes as the driver and lessen the work into the hamstrings. Keep the feet in tripod.



- 1. Add turnout by rotating the hips using the deep rotators. Focus on hip rotation rather than the knees moving out. Using resistance here will strengthen this movement.
- 2. Take a single leg bridge position. Press the right arm into the floor and float the right knee. Focus on the POS from the supporting foot to the opposite arm. Repeat on the other side.



- Ensure the pelvis remains level and foot in tripod.
- Add a knee press with the opposite arm to activate the AOS.
- 3. Add dynamic challenge with a repeated toe tap with the elevated leg.
- Ensure the pelvis remains level and the pivot point comes through the hip joint.
- The tap can be replaced with a straight leg kick for more of a control challenge. Using the deep hip suck cue is important here in the working leg.

## Lower core and abs



### Single toe tap

- Start in table-top position with a long spine and soft in the front of the hips and of the hips and outer abdominal.
- Pivot through the hip joint keeping the knees at 90°. The abdomen should change the amount of work it has, being the strongest when the foot is tapping to the floor.



### Double toe tap

- Lower both of the legs together and return to table-top. This is a big challenge for the core so ensure the spine and pelvis can remain still and level. Use the exhale to add extra stability as the toes lower to the floor and return.



### Butterfly toe taps

- Vary the double to tap motion add in hip external and internal rotation. Lower the toes with the hips open and toes together and then repeat with the knees together and the toes wide and the hips internally rotated.



### Hip twist

- Start in supine and tabletop. Rotate the pelvis to one side allowing the spine to follow this motion. Pause and then return to centre and repeat to the other side.
- Keep the pelvis and knees aligned and use the outer muscles of the abdomen.
- Add a further challenge with straight legs and a longer lever.
- Ensure the shoulders remain flat and relaxed.



### One leg stretch

- Start in neutral spine with the legs in tabletop. Lengthen one leg away and towards the floor. Lower the leg as far as you can maintain spinal and pelvic control.
- You can add connection and hand contact resistance against the bent knee to train the deep hip flexors, starting with the 'hip suck' cue.
- Focus on both hip extension control on one side and hip flexion strength on the other.

## Upper abs and full spinal control



## Abdo prep and oblique prep

- Start in neutral spine with a small curve under the low back. Initiate flexion of the neck by looking down the cheeks then lowering the chin to activate the deep neck flexors (neck core). Focus on gliding the low ribs down towards the pelvis which will lift the shoulders off the floor.
- Lightly support the head with the hands and watch that the abdomen remains flat and doesn't dome as the abs contract.
- Vary this exercise by adding an oblique angle with the chest lift. Think of taking the low ribs from one side to the opposite side of the pelvis. Keep the elbows wide and don't pull on the head.
- The low back curve should remain in place. Think of peeling the upper thorax off the floor and maintaining the low back and pelvis still.



## Reverse curl and roll over

- From the tabletop position draw the navel downwards and allow the low back to press firmly down onto the floor. This should cause a backwards tilt of the pelvis which will bring the knees towards the body.
- Think of drawing the pubis towards the navel to strengthen the low abdominals.
- Return this movement slowly and with control.
- The advanced exercise is the roll over.
- Start with the same reverse curl motion, extend the legs and slowly roll backwards until the legs are parallel to the floor. Pause, and the slowly return with full articulation through the spine.
- Work slowly and with control, do not throw the legs over with momentum.
- Keep the neck long and don't move the head around.





### Roll down

- Start in sitting with the spine stacked in neutral.
- Draw the navel towards the spine to initiate early spinal flexion/curve. Keep the shoulders over the hips for as long as possible as you roll down slowly to lying.
- Aim to move joint by joint and articulate through each spinal segment.
- Reverse this movement back up to sitting curving through the full spine. The pelvis will tilt back allowing the low back to press into the floor and shortening through the abdominals.
- Work with control and keep the same speed throughout.

### Retire series



### Supine retire

- Start with both legs parallel. Draw one leg up into a parallel retire and then open out to retire to 2nd. Reverse this movement and repeat on the other side.
- Ensure the pelvis remains flat and level.
- Use your deep abdominal cue and hip suck cue throughout the exercise.

### Side retire series

- Start in side-lying position with the spine stacked and a small lift in the underneath waist.
- Draw the knee up into a parallel retire and then open to 2nd. Reverse this movement and repeat. Ensure the pelvis remains stacked throughout and use the hip suck cue.
- To progress, draw the thigh up and deepen into the hip crease. Allow the pelvis to tuck under and hike on this side, using the deep hip muscles to increase turnout.
- You can place the big ball between the thigh and waist to add some resistance to the hip tuck.
- You can extend the leg into a développ   in 2nd.



## 4-point kneeling series



### Arm and leg lift

- Start in 4-point kneeling: wrists, elbows, shoulders stacked and hips over knees with a long neutral spine.
- 1. Float one arm forward with thumb uppermost. Feel the connection across the abdomen from hand to opposite inner thigh AOS. Ensure a strong push through the supporting arm.
- 2. Extend and hover one leg behind. Lead with the Glutes and avoid leaning and tilting to one side. Return the leg and repeat on the other side.
- 3. Finally combine the two movements together, opposite arm and leg. Ensure a long spine with no sheering into the low back. Feel the connections in both the AOS and POS. Maintain a strong push through the arm and level pelvis and shoulder platform.

### Sit backs

- From a stable 4-point position slowly move the hips back towards the heels. Focus on keeping the spine long and neutral and avoid a backwards tilt of the pelvis. Keep the cue of 'wide sits bones' and fold deeply into the hip creases. The knees may need to be wider if there is any pinching in the front of the hips. Return to 4-point again and repeat.
- To add more challenge return to arm and leg lift from the sit back position on a flowing motion. Aim to find the still balance point each time.



### Attitude

- Elongate the leg to hip height from a stable 4-point base. Push through both the arms and feel the activation of the AOS.
- Rotate the elevated hip using the deep hip muscles but keeping the pelvis level.
- Open the pelvis keeping the weightbearing thigh perpendicular to the floor. Take the leg to an attitude position, draw the heels of the hands back towards the legs and elongate the front of the body. Ensure no sinking onto the low back and keep pushing through the arms.
- Return back through a level 4-point position.



### Hip extension

- Lower the elbows to the floor and keep them stacked under the shoulders. Keep a long neutral spine. Maintain wide hands with finger pad press.
- Elongate the leg so it is level with the spine and pelvis. Bend the knee and then extend again for at least 10 reps. Keep the Glutes active and the thigh in line with the body. Watch that the thigh doesn't sink or the spine sinks and extends.
- For a different variation, lower the knee to the floor and raise again. Pivot through the hip joint and drive with the Glutes into hip extension. Maintain a long neutral spine and isolate movement in the hip.



### Prone series



### Attitude

- Lie on your front, legs long and parallel. Bend the knee and hover the leg off the floor. Initiate the movement from the Glutes followed by the hamstrings. Ensure the pelvis remains flat and level.
- Progress by opening the pelvis taking the leg into attitude. Keep the shoulders on the floor and allow the back to extend and rotate, allowing spinal articulation.
- Return to centre through the parallel leg lift position. Return to the ground and relax.





### Swimming

- Start on the front with the arms out to the side at 90:90 (shoulders 90°, elbows 90°).
- Hover one leg keeping it in parallel. Lead the movement from the Glutes not the Hamstrings. Maintain a level pelvis and long spine.
- Add an upper chest lift, peeling each spinal bone up in sequence and keeping the low ribs connected to the floor. Work only into the upper thorax not the lower back.
- Finally draw one arm back towards the rib cage adding some rotation into the spine. Move the opposite arm to the working leg creating connection in the POS. Return to the start and repeat on the other side. Feel the muscles relax off in between each rep.

## LEVEL 4 INTEGRATE – Planks

### General Aims

- Promote full body strength and connection from arms to legs.
- Strengthen all the dynamic slings.
- Add dynamic motion to the plank exercise.
- Promote on ground agility and endurance.

### General Precautions

- Keep the arms straight with wide hands and fingertip press connection. Avoid hyper extension at the elbows.
- Maintain strength in the shoulder girdle. Ensure no sinking or hunching of the shoulders.
- Ensure a smooth rhythmic breathing ability, no breath holding.

### PART 2

- Prone plank
- Side plank
- Supine plank
- Crawling and switches
- Full plank with hip and pelvic drivers.

## Prone plank



- Start in 4-point kneeling with the toes tucked under. Press firmly down through the arms with wide hands and finger connection. Press the feet down and back and feel strength build in the body. Hover the knees off the floor and hold the plank for 10 seconds. Keep a long spine and wide sits bones. Maintain regular breathing. Repeat up to 10 times.



- Progress with alternate foot lift. The body shape should stay the same. Avoid lifting the hips or sitting back towards the feet. Feel the extra activation in the AOS.



- Lift alternate hands. Keep the movement small and the body shape stable. Avoid shifting from side to side.



- The final progression is to lift alternate hand and foot together. Take time with this and hover with 2 points of contact. Maintain a strong push through the arms and legs.

## Full plank



The whole prone plank sequence above can be repeated in a full plank position.

With a full plank position maintain a long neutral spine parallel to the floor. The activation is through the front of the body, you don't need to grip with the hips or back.



## Side plank



- Set up with the knees and hands in the same line on the floor. Drive down with the arm and shoulder girdle to create strength, and then lift the underneath waist until forming a straight line with the trunk to the knees. Ensure the hips are centred and not bent. Hold for 10 seconds and focus on relaxed breathing.



- Add a side bend by lifting the pelvis up and then lowering. Keep the body flat and in line with the legs. Imagine being pressed up against a window to help keep the body flat and motion in frontal plane. Drive with the arm reaching it overhead as the pelvis lifts.





- Add a twisting variation by reaching down towards the bottom wrist and then opening up towards the ceiling, or even further by driving with the scapula down the back. Ensure the supporting shoulder doesn't lose stability and overextend. Rotate from the thorax not the shoulder.



- Strengthen the side of the hips by adding a leg lift with the top leg. Keep the trunk and legs in alignment and continue to push through the supporting arm.



- A final variation is the forward and back kick. Focus on deepening into the hip crease and dissociating hip and pelvic motion. Focus on opening into the front of the hip as the leg moves behind but watch out for maintaining the hip centred in the socket and minimise sheering. The arm can flow in opposition and encourage some rotation in the upper thorax.



## Full side plank



- The whole series can be repeated in a full side plank with the legs extended. Place the top foot in front to aid stability. Ensure the legs stay strong throughout.



- The side bend has the same watch points; push firmly through the supporting arm, keep the trunk and legs in alignment.



- The twist through exercise can be more dynamic with a lift of the hips to create a pike position. The rear foot may pivot slightly on the floor to assist rotation. Drive this motion from the abdomen and the supporting arm.



## Supine plank



- Start in sitting with the arms slightly behind you fingers facing either to the side or behind. Legs are parallel with tripod foot placement.
- Press down through the arms and open through the collar bones. Keep the spine long flexing into the hips. Hover the hips off the floor and hold for 10 seconds. Aim to keep the spine in neutral and wide through the chest.
- Progress with an alternate foot lift. Only lift the foot a small distance off the floor and press firmly through the hands. Maintain the same body shape.
- Keep feet connected in tripod and hover alternate hands. Keep the body shape the same with minimal shift or rotation. Feel the change in pressure through the feet and POS.
- Finish with an opposite hand and foot hover. Keep the movement smooth and only hover the limbs a small distance. Think of pushing the supporting hand and foot away from each other to add strength.

### Full supine



- The whole sequence can be repeated in a full plank. Be mindful of shoulder position and elevate from the hips not the back. Feet can be flexed or pointed. A flexed foot will create more strength through the back line.
- A hand and leg hover is very advanced, and only a very small hover of the limbs is required.

### Crawling and Switches



- Crawling drills will be done in the small prone plank position. Aim to lift a hand and foot at the same time and place down at the same time. You will have only 2 points of weightbearing happening at any one time.
- Crawl forwards. Crawl backwards. Crawl sideways. Keep the hips low and the knees just hovering off the floor.
- Switches involve transitioning from prone to supine planks.
- Right under switch: start in prone plank, rotate to the left threading the right leg under the body and lifting the left hand. You will be in 2 points of weightbearing. Follow the rotation to the left and place the foot and hand back to the floor into supine plank.
- Return in the reverse order. The movement could also be continued as a left under switch so keeping the movement flowing in the same direction.
- A same side switch may also be performed lifting the same hand and leg. There will still be a moment with only 2 points of weightbearing and the hips need to remain low.

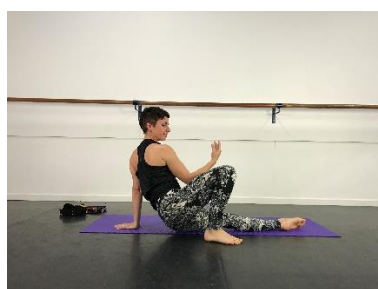
### 3D pelvic driver



- Start in a full side plank position with body in neutral stack and a strong push through the arm.
- Move the pelvis in all 3 planes of motion. Start with frontal plane moving the pelvis up and down. Then move in sagittal taking the pelvis forward and back. Rotate the pelvis down and up for transverse plane. Repeat each movement about 8 times.
- Ensure good shoulder control and allow the scapula and thorax to move together, ensure the shoulder isn't forced into end range. Keep the movement quite small and smooth the fire up the core and supporting slings.

### 3D knee drivers

- Start in full prone plank and take the hips back into a down dog position. Elevate the leg in parallel into 3-legged dog. Keeping driving back through the arms and shoulders and avoid sinking into the back.
- Draw the knee forward, tuck the abs and round the back bringing the knee towards the forehead. Return to 3-legged dog.
- Repeat with the knee driving to the outside of the arm. Allow the body to send bend using the side abs and the elongate the leg again.
- To end, take the knee to the opposite elbow, twisting the body. Return to 3-legged dog.
- As a progression you may finish by opening the pelvis and leg and lowering into a bridge position driving the hips up to open into the hip flexors and abdomen.
- Spring back from this position to 3-legged dog and repeat.



## LEVEL 5 **STRENGTHEN** – Standing on two legs

### General Aims

- Create stability and control in standing.
- Promote good functional movement patterns.
- Connect the hips to the feet for maximum control.

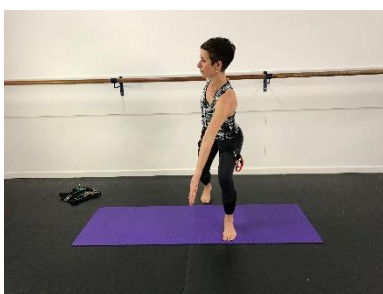
### General Precautions

- Allow the foot to be mobile but maintain tripod connection.
- Ensure no pinching or gripping at the front of the hips.
- Focus on a 'wide sits bone' cue to assist in posterior hip glide.

### Part 1

- Wake up the glutes
- Squats
- Lunges
- Hinges.

### Glute load 3D



- Step forward onto the right leg and reach low with the arms. Feel the pelvis tilt forward and deepen into the hip crease. Maintain a long spine and feel the tension increase on the Glute and hamstrings of the lead leg.
- Repeat the forward step and drive the opposite arm towards and across the lead leg. Allow the pelvis and trunk to follow this motion. This should increase the stretch and load into the Glutes. Aim to keep the knee over the confines of the foot.
- Repeat the step forward again but drive away from the lead leg with the same side arm. Allow the pelvis and trunk to also rotate. Feel the tension and load move towards the medial knee and allow the foot to pronate.
- Repeat the 3 variations noting the different tensions at the back of the hip. A long spine and tilting pelvis are essential.

### Squats – with variations



- Start with the feet hip width and lower into a squat. Allow the pelvis to tilt forward, keep a long neutral spine, relax the feet and allow the knees to stay within the confines of the foot. Cue wide sits bones to allow the hip joint to glide back into the socket. The body should still be at about 45° as the hips lower to the ground.
1. Variations in tempo can be added such as a slow lower or a slower return with holds at the bottom. For example 3:3:1, which means 3 seconds to lower, 3 seconds hold, then 1 second to return. This emphasises eccentric and isometric muscle work.

## 2. Add variation with a change in footprint.

- The feet can be hip width, narrow, wide, offset right and left, internally rotated or externally rotated. Each foot position will feed different information up the chain into the hips. Repeat 4-6 squats in each position.



## 3. Vary position of the hips in the squat with 3D arm drivers.

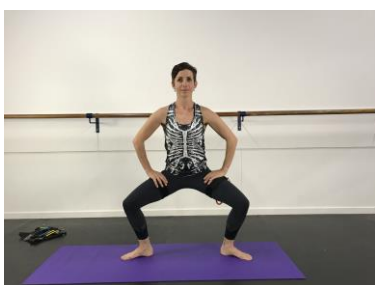
- Start with arms in sagittal plane reaching low and then high. Feel the load change from the hips to the knees.
- Then move the arms side to side, frontal plane, allowing the hips to move to the opposite side.
- Finally move the arms right and left at shoulder height, transverse plane. Allow the hips to move in the opposite direction, the knees will also follow.





#### 4. Add dynamic motion with travelling squats.

- Travel left right either on the spot or with several squats in the one direction. To add complexity, add the 3D arm drivers to the travelling squats.



#### Sumo squat

- Start with a wide stance, feet turned out using the deep turnout muscles. Lower the pelvis down whilst rotating the thighs. Keep the feet relaxed and the body upright.
- 1. Vary the tempo of movement and holds at the base of the squat.
- 2. Hold at the bottom of the squat and transfer weight from right to left. Aim to stay low and feel the inside knee muscles activate (VMO). Allow the feet to relax and spread. Maintain a deep fold in the hips. You can add a rise of either one foot or both to add a balance challenge to this position.
- 3. Add mobility to the hips by tilting the pelvic in all 3 planes of motion at the bottom of the squat position. Feel the hips sinking deep into the socket. Transverse plane will be limited in range of motion.
- 4. The 3D arm drivers from the previous section can also be added into this squat position.



## Lunges



### 3D lunge matrix.

- Start with a forward lunge, sagittal plane, allowing the hips to pivot and the pelvis to tilt forward. Keep a relaxed foot, long spine and wide sits bones.
- Return to centre and then lunge to the side in frontal plane. Start with the lead foot facing forward to maximise Glute loading. The trail leg can be straight or bent. This can also be done with the lead foot turned out. Aim to feel deceleration in the trail leg adductors.
- Finally, rotate and lunge on the back diagonal with the foot facing in this direction also. Repeat these 3 styles of lunge on one side before swapping. Keep the movement rhythmic allowing the load of the muscles to spring you back again to centre.

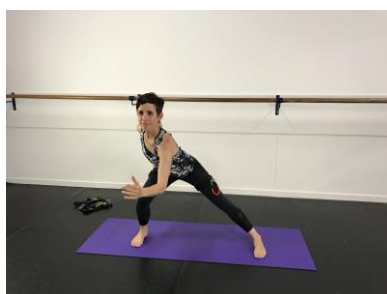
- Add the 3D arm drivers to the lunge sequence.
- Start by keeping the same direction with the leg and vary the arms – such as sagittal leg forward with sagittal, frontal, or transverse arms. Vary this up with 3D leg but keeping the arms in one direction such as sagittal. This adds complexity and multidirectional load into the hips and core.





### Curtsey to lunge

- Start in parallel and take the right foot back and behind into a deep curtsy. Drive the hips to the left and load into the outside of the hip. Spring back out and into a deep frontal plane lunge with the right foot facing forward to load the Glutes. Repeat this movement back and forth sinking deeply into the hip creases and keeping a long spine.
- Change the footprint with the lead foot in the side lunge by adding external and internal rotation. The curtsy foot will remain the same. This will add variability to the loading of the hip and hamstrings.



### Hinge



- Start with feet parallel and hip width. Pivot at the hips and a long spine slowly lowering the trunk towards the thighs. Stop when you feel the spine starts to bend. Sink deeply into the hip creases. This will be felt in the hamstrings. Return to standing with a straight back. Bias the tempo for eccentric lengthening with a 3:1:1 tempo. Lower for 3 seconds, hold for 1 second, then return in 1 second.
- Challenge this motion further with a change in footprint: narrow, wide, offset, external and internal rotation.



## LEVEL 6 **STRENGTHEN** – Standing on one leg

### General Aims

- Train the body on one leg.
- Challenge balance, core and dynamic hip control.
- Introduce dynamic work with jumps and hops.

### General Watch Points

- Avoid gripping and scrunching of the toes, maintain a relaxed wide foot.
- Keep the hip centred in the pelvis and avoid forward sheering.
- Avoid excessive butt gripping. Follow the 'wide sits bones' cue.
- Keep the movements relaxed and avoid excessive bracing.
- Watch for foot articulation and a controlled leg with jumping and hopping.

### Part 2

- One leg balance
- Skater
- One leg squat
- Hip flexion strength
- Lunge to balance
- Pendular
- Jump, Jop, Hop.

## One leg stand



- Start with the feet in parallel and close together. Shift the pelvis (centre of mass) towards one leg, keeping the spine stacked on axis (pubis, navel, sternum aligned). Lift the other leg up without connecting with the standing leg. Balance for 30-60 seconds. Keep the knee soft/centred and the foot wide and relaxed with no toe scrunching. Weight should be between the heel and toe knuckles, not the toe pads. Ensure the pelvis is level with no drop or hike and the spine is upright. There is no need to brace in the trunk or abs. Breathe slowly and relax into this balance. This can be repeated in turnout.



- To further balance challenge add the 3D arm drivers. The arms can move in sync (together) or out of sync (in opposite directions but in the same plane). Try to maintain spinal stack with this first version and just feel the perturbation into the system in all directions created by the arm movements.



- In the second version allow the pelvis and trunk to move with the arms. This becomes a more dynamic balance challenge. Allow the feet to pronate and supinate as the pelvis moves in 3D.



- The final challenge includes 3D leg drivers. Tap the non weight bearing leg forward and back either touching the floor or as a hover (sagittal). Then tap from side to side crossing in front of the weightbearing leg (frontal). Finish with a rotational tap in the front diagonal and back open diagonal (transverse). Hovering the foot off the ground will increase the balance challenge. Aim for 4-5 sets of taps in each direction. Arms can be added to this by staying in the same directional plane or mixing them up. For example, combine sagittal leg taps with frontal arm movement.



### Skater



- Start in parallel stance and bend both knees, hinging at the hips and maintaining a long spine. Drive the leg to the side and return. Repeat to the back diagonal and then again to the back. Repeat these 3 vectors of movement. Aim to keep the pelvis, spine and weightbearing leg still as the other leg drives in a skating motion. Ensure no gripping in the feet and tripod placement maintained.
- Repeat on the other side and add the resistance for more challenge.

### One leg squat



- Start in a one leg stand with a level pelvis and stacked spine. Bend the knee and hinge at the hips lowering into a single leg squat. The hips should travel down and backwards with the knee remaining over the foot. The foot remains relaxed.
- Vary this by keeping the body upright similar to a fondu alignment. It can also be done in turnout. Think of the bones moving and allow the muscles to react to this bony movement.

### Knee hold



- Stand on one leg and bring the other knee up as far as you can without tilting the pelvis under. Bend deeply into the hip crease and use the hip suck cue. Hold the knee at this height and rest your hand on top as a marker for placement. Bend and straighten the knee repeatedly for at least 20 reps. Maintain the same height of the knee against your marker hand and keep the pelvis level.



### Running man



- Combine the single leg squat and one leg balance together in a rhythmic motion. Add dynamic arms in opposition to simulate the running motion.
- Keep the pelvis level and bend deeply into the hip crease.



### Lunge 3D to one leg stand



- Perform the lunge matrix but return to a one leg balance in between each lunge.
- Perform a dynamic lunge and then find your balance point and pause. Ensure to bring your centre of mass back over your foot again.



## Pendular

- Start with the legs parallel and slowly hinge at the hips allowing one leg to extend back behind you until it reaches hip height. Keep this leg in parallel and the pelvis level to the floor. (Thinking of internally rotating the leg may help). Watch that the supporting knee is not hyper extended, and toes are soft. Return the elevated leg to either centre, or through to a knee bend at hip height. Move back again to the pendular position.
- For more variation try a walking pendular. Travel in a forward direction moving into a pendular motion with each step forward and coming back to a balance in between.
- A final advancement involves a rotating motion of the pelvis on the weight bearing leg. Once in a pendular position rotate the pelvis towards the weight bearing leg, this will increase the stretch on load in the Glutes and hamstrings. Then rotate away from the standing leg. This rotation can be done at any height as long as the body and elevated leg are aligned.



## Jump Jop Hop!



- This brings a dynamic and CV component to the programme and terminology is taken from the Gray Institute.
- A *jump* is 2 legs to 2 legs. A *jop* is from 2 legs to 1 leg. A *hop* is from 1 leg to 1 leg.
- Vary speed, tempo, time of exercise, height, sticks (holding the squat on landing), footprint and direction.
- Bounding can be added which is a forward travelling motion with slow controlled landing. We are always looking for connection between the foot and hips and the ability to find a controlled landing.

## STANDING SERIES: BANDS and DANCE

### General Aims

- Introduce some resistance to the hips and pelvis with dance technique.
- Integrate core and hip control with balance and more dynamic motion.
- Activate the feet in weightbearing.

### General Precautions

- Watch for loss of control or endurance in the deep hip rotators in 1st and 2nd position. This will lead to excess torsion in the knees and excessive pronation in the feet as turnout is forced.
- Maintain correct tripod foot alignment and deep hip control.
- Avoid excess gripping with Glute Max as this will posteriorly tilt the pelvis and drive the hips anteriorly into non-optimal alignment.
- Allow the feet to pronate naturally with plies but find centre again on return. The feet should supinate fully with rises.

### General Watch Points

- Do not allow the leg resistance to overcome good technique.
- Maintain a continuous breath with movement.
- Maintain fluid rhythmic movement.
- Choose the correct resistance level for the dance movement.



## Barre Work and more...

Any style of barre work can be done with the leg resistance straps. Certain exercises may want to form the focus of this stage, or just run a normal barre sequence. The bands can also be used for training strength with kicks, leaps and turns.

- Do the exercises and then unclip the bands on one side, allow them to hang and repeat the exercises to see the difference in the quality of movement, height and sense of control.
- Start with light resistance and maybe keep the legs lower than normal initially.
- Focus on the centring affect of the hips and core that can be felt from the leg straps.

### Plié, Rise and Port de Bras



### Fondu, Tendu, Glissé, Arabesque



## CLASS PLANNING

### General Aims

- Create a full body training session with safe use of resistance.
- Train the body from the inside out, focusing on timing and appropriate muscle use: stability, then strength and power.

### General Precautions

- Avoid pain with all exercises and know how to modify to suit certain conditions.
- Keep range of motion small initially to encourage good quality before adding resistance, increased tempo or larger movements.

### General Watch points

- Exercise focus will be quality not quantity.
- Start with the most basic form and build and progress the exercises as appropriate for the client base.
- Start with the easiest level of band and increase only when technique is executed well.
- Choose music that is appropriate. Something that allows clients to work at their own pace without being rushed.

### Class Options

- Run each section as a mini class, maybe at the start of the day.
- Use various aspects of the programme to do a full class 45-60 minutes – such as picking a couple of exercises from each level and running in order.
- Focus on one section each week – such as isolate in week 1, and then integrate in week 2.

## NOTES



Thank you and I hope you get success from this programme.

*Sally xxx*