



GYMNASTIC BODIES

COURSE: FUNDAMENTALS CREDIT: CHRISTOPHER
SOMMERS

Abstract

This Document is to be used as a reference guide for the Fundamentals of Gymnastic Strength Training (GST).

Nathan V
[Email address]

Table of Contents

Block 1:	2
Crab and Ape	2
Body Orientation	3
Wrist Mobility.....	4
Body Position.....	4
Block 2:	6
Frog and Stiff Bear	6
Rotation of the Torso	7
Calf Mobility	8
Hollow and Arch.....	9
Block 3:	10
Lizard	10
Protract and Retract.....	10
Intro to thoracic Mobility	11
Elevation and Depression:.....	12
Block 4:	13
Inch Worm	13
Flexion and Extension	14
Daily Limber:.....	15
PPT and APT.....	16

Block 1:

Crab and Ape

Description:

Crab: To address tightness in the shoulder extension position, will also stretch the hip flexors.

1. With torso facing to the ceiling press up from sitting to Crab position
2. Organize shoulders over wrists, 90-degree angle.
3. Rotate hips into posterior tilt and engage abdomen.
4. Organize knees over feet, 90-degree angle, walk feet away.
5. Checklist: Shoulders pinch together, Glutes tight, Belly engaged.



Ape: Open out hips, stretch the knees and Achilles.

1. Position yourself into a deep squat.
2. Allow your knees to be vertically in line with feet, as well as lowering hips to ground.
3. Place knuckles directly beneath you on the ground, thumbs facing out, elbows locked out.
4. Lastly ensure back is straight and head is not translating forward.



Once positions are established and mastered, begin to walk forward in Crab and Ape. One side moves at a time.

Common Problems/Notes:

Crab:

If wrist pain occurs, turns hands out sideways.

When walking actively roll shoulders out externally.

Ape:

Lumbar spine may not be lengthening enough.

Place 30% of weight onto knuckles.

Arms translating too far forward and coming up on toes indicates tight hips and hamstrings.

Body Orientation

Description:

Prone:

1. Laying on Belly, feet together, arms above head with palms on ground.



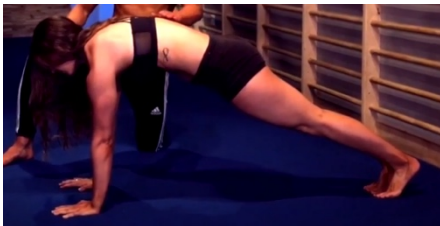
Supine:

1. On backside, legs together, arms above head with palms facing ceiling.



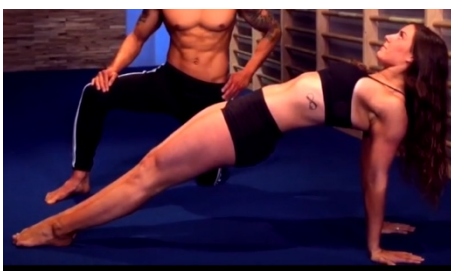
Front Support:

1. High Plank with fingers facing forward and elbows locked out.



Rear Support:

1. Shoulders over hands with fingers facing away and elbows locked out. Body is dead straight from toes to head.



Common Problems/Notes:

kyphotic posture: Also known as postural kyphosis, is the “round back” or inward slouch. This is usually accompanied by “hyper lordosis” of the Lumbar (Lower) spine. Furthermore, due to the rounded back the head translates forward.

Poor shoulder mobility: A work-around for this is to bend the arms 90-degrees to the side and as mobility improves bring the arms slowly above the head.

Front Support: Ensure there is a string posterior hip tilt with protraction of the shoulders.

Wrist pain: Slightly turn out hands.

Wrist Mobility

Description:

Start by sitting in Japanese sitting position. Fingers spread open. Back straight.

Palms down fingers forward. Push body weight forward.

Palms down fingers towards knees. Push body weight back.

Back of hands down fingers forward. Push body weight forward.

Back of hands fingers towards knees. Push body weight back.

Common Problems/Notes:

Fingers forward - Place hands out in-front at a 45-degree angle. Whilst maintain straight locked out elbows.

Fingers towards knees – Lean out forward and organize arms in a 45-degree angle.

Closer the knees to wrists means less weight into wrists.

Body Position

Description:

The Basic Body positions are as follows;

Straight:



Tuck:



Straddle:



Pike:



Common Problems/Notes:

Straight position, people tend to have an arch in the lower back, resulting in a gap between the floor and their lower back. To fix this, and reduce the gap as well the athlete will push their anterior ribs along the costal margin in toward to floor.

Tuck: If there are impingement issue at the front of the hip, the athlete may opt to have legs separated.

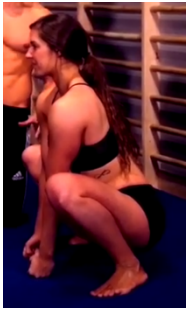
Pike: Sit in an anterior pelvic tilt. May use blocks.

Block 2:

Frog and Stiff Bear

Description:

Frog: Will demonstrate hip, knee and ankle mobility.



1. Begin in low deep squat position, similar to Ape position.
2. Hips low, back flat, knees high, stretching Achilles and lower back.

Stiff Bear: Will demonstrate hamstring and lower back flexibility.



1. Lock knees out and push heels onto the ground.
2. Shoulders open, elbows locked, pressing whole hands flat on ground.

Once positions are established begin to walk forward. The Frog is moving forward like a Gorilla; hence arms propel forward and legs push off together to meet arms. With Stiff bear, walking forward slowly focusing on back of knees being locked.

Common Problems/Notes:

Frog:

Ensure knee and ankle are aligned and are pointing in the same direction. With poor hip mobility, an athlete may revert to valgus knees.

Good Mobility for this exercise is indicated by bringing feet in front of hands whilst moving forward.

Stiff Bear:

If heels are off the floor due to poor hamstring mobility. Allow the legs to come back and find a comfortable distance, ensure here the knees are locked out and heels flat against floor. In time, when mobility improves begin bringing legs closer to head.

Rotation of the Torso

Description: Trunk rotation, stretching and strengthening the obliques.

Stretching:



1. Begin by standing 8 inches away from the wall. Back facing the wall.
2. Ensure feet are planted on ground and don't twist out. Parallel feet.
3. Place hands chest level high and begin to rotate to either side.
4. Whilst twisting into wall, plant closest hand onto wall and furthest hand roughly same distance away.
5. Push initial closest hand away from the wall whilst pushing furthest shoulder from wall towards the wall.
6. This dual action should encourage rotation of the torso and a strong stretch in the oblique.
7. Release slowly, come back to center, repeat with the other side.

Strengthening Oblique:



1. Laying on backside, Arms to Letter T, Hips and knees raised to 90-Degrees, toes pointed.
2. As you bring the knees down one side, the opposite shoulder stays grounded on the floor.
3. From there, engage obliques and twist back to starting position.
4. Repeat other side.

Common Problems/Notes:

Squeeze glute to keep hips facing directly forward, this will increase the stretch in the obliques.

Exhale coming down, inhale coming up.

A modification to make this easier is to plant feet squeezed together on ground in line with center, and allow knees (together) to drop to one side.

Calf Mobility

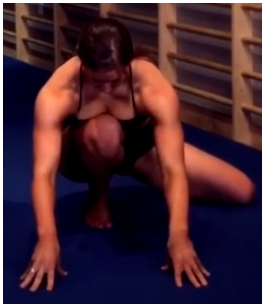
Description: Stretching the Gastrocnemius and Soleus. Gastrocnemius is an outer layer muscle of the calf which will be stretched with a straight knee position. The Soleus is a deeper muscle, bending the knee to stretch this muscle.

Gastrocnemius:



1. Begin in downward facing dog position.
2. Lock out knees, keep ankles on ground.
3. Walk the feet out backwards, till the ankles come slightly off the ground.
4. Push ankles down and hold the stretch.

Soleus:



1. Supporting leg and leg which will be stretched bending down and aligning knee and foot in forward direction.
2. Non supporting leg, basing out to the side at a 90-degree angle.
3. Stack the sternum onto the knee, and sink the hips down.
4. Place hands in front and lean forward to increase the stretch.

Common Problems/Notes:

The Gastrocnemius is stretched maximally by straightening the knee.

With the Soleus stretch it is imperative to maintain good alignment.

Hollow and Arch

Description:

Hollow: Cinching belly in, engaging transverse abdominus muscle.



1. Feet are together, hands by side.
2. Slowly bring shoulders off the ground. Raise legs to same level.
3. Keep glutes tight and ensure lower back is flat on the ground.
4. Shoulders internally rounded.
5. Ensure belly button is cinched in.

Arch: Strengthen lower back, glutes and hamstrings. Squeeze legs together and work the Posterior of the body.



1. Laying on Front.
2. Fingertips behind ears.
3. Feet together.
4. Arch up, lifting the quads off the ground, heels together, engaging glutes, back engaged.

Common Problems:

Hollow:

Key point is ability to keep lower back on the floor. Check by forcing hand under lower back.

If this is too hard, reduce the lever by straddling the legs, bend knees if again too hard.

Arch:

Flare the elbows out higher. And ensure knees are straight.

Block 3:

Lizard

Description:

This exercise will demonstrate hip mobility, core strength and shoulder flexibility.



1. Start by extending one arm forward and extending same side leg back.
2. Opposite leg bending and stacking knee of ankle.
3. Notice: Extended leg has hip flexors open, bent leg the glutes and adductor are being stretched.
4. Cinch belly inward to engage core and maintain a flat back.
5. Extended arm shoulder lengthening, plus opposite arm engaging by the scapular.
6. To begin movement, step extended leg forward whilst moving non-extended arm forward.
7. Transition into Lizard position on opposite side, and sink body low to floor.
8. Repeat.
9. To make this exercise more difficult and more focused on mobility, keep the hips low to the floor and bring the knee around from the side during the transition between opposing lizard positions.

Common Problems:

Focus on maintaining straight arms/legs in the extended side, lock out the knees and elbows.

Poor strength and hip mobility will place limitations on this exercise, stick with your level and progress slowly.

Protract and Retract

Description:

Shoulder girdle movement, Protraction and Retraction. Protraction: shoulder blades moving apart. Retraction: shoulder blades coming together.



1. Begin in Hands and Knees position, where shoulders are stacked over wrists and hips directly over knees.
2. Protract, push off hands and allow shoulder blades to separate. A smooth rounded back should be seen.
3. Retract, pinch shoulder blades together.
4. Elbows locked out the entire time.

Common Problems:

Sitting with folded legs underneath, bring arms out in front of body in line with shoulders. Check if athlete has a tendency to raise their shoulders up towards their head (Elevation), if so, correct this by lowering the shoulders (Depression).

This exercise is building up serratus anterior.

Lock out elbows by squeezing triceps and generating torque of hand by externally rotation hands firm on floor.

Intro to thoracic Mobility

Description:

Thoracic: mid back.



1. Laying on back with knees up.
2. Using the legs and hips, push up arching the spine.
3. Hold, then come down slowly.
4. If this is difficult, you may support your hips with hands.

Common Problems:

Limit the degree on Lumbar extension, be mindful of hips tilting forward. To rectify this, engage glutes and pull the tailbone forward.

If shoulders are elevated when beginning to raise up more pressure is place on the neck. Encourage athlete to depress shoulders and pull their hands away from their head as a cue. This will keep the neck long and cervical spine less impacted.

Finally, pop shoulder up and externally rolls shoulders.

Elevation and Depression:

Description:

Elevation of the shoulder blades, is when you bring your shoulder blades up in the shrug position.

Depression is simply moving shoulder blades down.



1. From Seated position follow images above for arm arrangement.
2. Arms straight, locked out elbows.
3. Elevate, shrug shoulders to ears
4. Depress, allow shoulders to fall directedly down.
5. Ensure shoulders are neutral and not protracting or retracting.

Common Problems:

If one arm and move further in extension than the other, it is recommended that you keep arm matching in line with restricted arm.

With arms extended out in front of body, if this is too hard reducing the level by bending the arms inwards.

Arms by side, feel free to use yoga blocks.

Block 4:

Inch Worm

Description:

This exercise will be working on Hamstring mobility, shoulder mobility and core strength.



1. From Standing position lean upper body towards the ground and place hands flat on ground close to feet. This requires good lower back and hamstring mobility. If you are too tight to achieve this position, opt to use the modified position.
Modified position: Slight bend in the knees, leaning forward slightly, placing hand on ground then slowly extending the legs.
2. Using the hands, walk forward into high plank. Ensure the following; engaging core, hips in posterior pelvic tilt and in plank shoulders are protracted.
3. Start to walk hands forward, lower to any level your able to do. Hold for a short period of time.
4. With hands planted on the ground, slowly walk feet towards head till you achieve forward fold position (Lock out knees).

Common Problems/Notes:

Hands on floor is paramount for this exercise. If hands are raised from the floor, bend the knees.

Maintaining the correct shape in front support is paramount. If when walking the hands forward the athlete loses the correct shape of front support (protracted shoulders, engaged core, hips in posterior tilt and legs straight), Stop. Achieve correct shape for front support first then take as many steps forward as possible whilst maintaining correct shape.

When walking the feet towards the head, poor hamstring mobility may restrict this. Bend the knees slightly if this occurs to ensure palms are continually flat on the floor.

Flexion and Extension

Description:

Shoulder Flexion and Shoulder Extension.

Shoulder Flexion: Arms come in front of the body and raise above the head.

Shoulder Extension: Arms come behind the body and raise to 90-degree angle.



Shoulder Flexion:

1. Stand tall, ribs in and arms by the side.
2. Slowly lift arms above head.
3. Open shoulders as much as possible (Protract and Elevate).

Shoulder Extension:

1. Holding a bar or towel with an overhand grip. Thumbs out, palms facing hips.
2. Lift arms up behind body, creating a 90-degree angle.
3. Ensure ribs and neck are tucked in.

Common Problems/Notes:

Shoulder Flexion:

Many people who lack shoulder mobility will fault and use Thoracic extension to get their arms above their head. When squeezing the buttocks and rotating the bottom of the ribcage inward this may cause the arms to translate forward. This is an indication of the muscles attaching the arms to the anterior chain such as the Serratus anterior and Pectorals are tight, thus preventing shoulder flexion range of motion. The emphasis here is to maintain correct posture and pull the arms into flexion to the end range of motion, whatever range this may be.

Shoulder Extension:

Start hands shoulder width if possible, if you need to go wider that's fine too.

As the arms extend the head may translate forward, this is due to being tight in the front of the shoulders. The head will translate forward as a compensation from the Upper Thoracic and Cervical spine. Lower arms and correct posture, take to range of motion where the person can extend their arms whilst not translating their head forward.

Daily Limber:

Description:

Series of Stretches you should do prior to working out.

1. Wrist Stretch
2. Seal
3. Cat
4. Capsule
5. Shoulder Extension
6. Hip swivel
7. Straddle (Forward, left and right)
8. Butterfly
9. Pike
10. Shoulder bridge
11. Calf Stretch



PPT and APT

Description:

Hip mobility, Posterior Pelvic Tilt and Anterior Pelvic Tilt.

Anterior Pelvic Tilt: No movement in trunk, rotating pelvis forwards.



Posterior Pelvic Tilt: Engaging glutes and lower back flat.



Common Problems/Notes:



To help explain PPT and APT, the use of a wheel as a visual will help. Laying on back and viewing from the section, place a wheel next to the hip. Visualize the hips as a circle or wheel, the axis of rotation is the center of the wheel. With Anterior tilt the wheel rolls forward. Posterior Tilt, the wheel rolls backwards. Another cue is the lower back touching the floor or a gap between the lower back and floor.

Another position for this exercise is on hands and knees.