

Majrasana Cat Pose	<p>To mobilise the spinal vertebral joints working the spinal flexors & extensors</p> <p>i) Dynamic stretch moving through ROM</p>
Balasana Child's Pose	<p>To subtly relax all muscles especially: neck muscles (splenius, suboccipitals, semispinalis & sternocleidomastoid), spinal extensors (erector spinae), hip extensors (gluteus maximus & hamstrings), knee extensors (incl. quadriceps), and deep external hip rotators; also rhomboids, trapezius & posterior deltoid...</p> <p>i) Passive stretch as we hold the stretch reflex relaxes muscles</p>
Ashwa Shanchalanasana Equestrian Pose /Lunge	<p>To release the hip flexors (rectus femoris, iliopsoas, sartorius & tensor fascia latae)</p> <p>i) Passive stretch (hands and rear knee stays to floor) as we hold the myotatic/stretch reflex relaxes muscles</p> <p>ii) Active stretch (back toes dorsiflexed, back knee lifted from floor) as the agonists (knee extensors i.e. quadriceps & tensor fascia latae & hip extensors i.e. hamstrings & gluteus maximus) contract the antagonists (rectus femoris, iliopsoas, adductors, sartorius & tensor fascia latae) relax i.e. there is reciprocal inhibition (Gives strength plus flexibility)</p> <p>iii) Isometric stretch (contract hip flexors as if squeezing box between legs) where at full ROM contracting the stretched muscles against some immovable resistance activates the inverse myotatic stretch/lengthening reaction. Here to avoid injury the golgi tendon organ overrides the stretch reflex and so muscles lengthen; in addition more of the resting muscle fibres are incorporated, some of which are contracted & others lengthened, meaning overall more muscle fibres can be lengthened to aid flexibility. (Gives strength plus flexibility)</p>
Adho Mukha Svanasana Down Dog Pose	<p>To stretch the hip extensors (hamstrings & gluteus maximus), knee flexors (gastrocnemius, gracilis & hamstrings), plantar flexors (gastrocnemius & posterior tibialis) and deep external hip rotators.</p> <p>i) Active stretch (contracting the quadriceps – avoiding hyperextension) as the agonists the hip flexors (i.e. rectus femoris, iliopsoas) and knee extensors (i.e. quadriceps) and dorsiflexors (i.e. anterior tibialis) contract, the antagonists, especially the gluteus maximus & external hip rotators, hamstrings and gastrocnemius relax i.e. reciprocal inhibition</p>
Shalabhasana Locust Pose	<p>To strengthen the hip extensors (hamstrings & gluteus maximus) and relax the hip flexors (rectus femoris, iliopsoas)</p>

Strength & Flexibility Training Practical

	i) Active stretch as agonists (the hip extensors i.e. hamstrings & gluteus maximus) contract the antagonists relax i.e. <u>reciprocal inhibition</u>
Anantasana Pose of Bliss	<p>To release deep hip rotators, hamstrings & the adductors:</p> <ol style="list-style-type: none"> 1. 10 seconds initial passive stretch 2. 6 seconds engage stretched muscles against resistance 3. 3 seconds relaxing muscles 4. 10 seconds another passive stretch 5. 20 seconds relaxing muscles 6. Repeat just once more <p>P.N.F. stretch incorporates <u>an isometric stretch between two passive stretches</u>, so we gain the benefits of the isometric stretch as above, and then during the second passive stretch we can proceed into a deeper stretch as more muscle fibres will have already lengthened to avoid injury and some muscle fibres will be fatigued giving less resistance.</p>
Apanasana Gas Releasing Pose	<p>To stretch the back extensors (erector spinae & lower latissimus dorsi)</p> <p>i) Upper body: dynamic stretch (drawing knees to and fro with the breath) <u>moving through ROM</u></p>

In summary there are five types of flexibility methods we have explored:

1. **Dynamic Stretching** i.e. gentle slow movements at full ROM
2. **Passive stretching** where as we hold a static stretch without effort the stretch reflex relaxes muscles, i.e. myotatic/stretch reflex.
3. **Active stretching** where as we hold a static stretch and as agonists contract the antagonists relax i.e. reciprocal inhibition
4. **Isometric stretching** where at full ROM contracting the stretched muscles against some immovable resistance activates the inverse myotatic stretch where the golgi tendon organ overrides the stretch reflex to avoid injury and muscles lengthen; in addition more of the resting muscle fibres are incorporated, some of which are contracted & others lengthened, meaning overall more muscle fibres can be lengthened aiding flexibility.
5. **PNF or Proprioceptive Neuromuscular Facilitation** incorporates an isometric stretch between two passive stretches, so we gain the benefits of the isometric stretch as above and then during the second passive stretch we can proceed into a deeper stretch as more muscle fibres will have already lengthened to avoid injury and some muscle fibres will be fatigued giving less resistance.

In addition, noting we have worked primarily with the following groups of muscles:

- Hip flexors (rectus femoris, iliopsoas, adductors, sartorius & tensor fascia latae)
- Hip extensors (hamstrings & gluteus maximus)
- Knee flexors (hamstrings, gastrocnemius & gracilis)
- Knee extensors (quadriceps femoris & tensor fascia latae)
- Plantarflexors (gastrocnemius & posterior tibialis)
- Dorsiflexors (tibialis anterior)