



Unit 3: Safe Practice Techniques and Body Mechanics

PAPER 8 — Injury Prevention

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(Therapist posture • Stroke & stretch alignment • Client ergonomics • Support tools • RSI prevention for therapists)

Correct therapist body posture during Uzhichil

Efficient posture lets you deliver pressure with **body weight**, not small joints. Build your stance before you touch the client. Keep a **long spine** (sternum lifted, ribs soft), pelvis neutral, and **hinge at the hips** rather than flexing the lumbar spine. Stack joints so that **shoulder → elbow → wrist → contact point** sit in one line of force. Keep wrists near-neutral (little to no ulnar deviation), elbows softly flexed (20–30°), shoulders depressed and wide via gentle scapular set (serratus + lower traps).

Use three “home” stances and flow between them:

- **Split stance (lunge)** for long forearm glides: front knee over 2nd–3rd toe, rear heel light; move the whole body to create stroke, not just the arm.
- **Horse stance (wide squat)** for bilateral work (back/thighs): feet slightly turned out, knees tracking, pelvis dropping straight down.
- **Narrow stance at table corner** for head-neck work: one foot forward under the table corner to keep chest close and elbows tucked.

Table height is your silent assistant: for **forearm/palm strokes**, set table just **below your ulna styloid/wrist crease**; for **precision head-neck work**, raise it a few centimeters to spare your back. Breathe with the stroke—**exhale as you load, inhale as you return**—to keep pressure steady and the nervous system calm.

Proper alignment during strokes and stretches

Every stroke has a **line of drive**; let bones carry it. For long **Thirumu** glides, align your forearm so a straight line could run from your back foot through your elbow to the target. Keep the contact broad (palm/ulnar forearm) and travel with your legs; your hand should be the last thing to fatigue. For **Eduthu-thirumu** (lift-knead), lift with a whole-hand scoop and forearm support, not thumb pinch. For **Akam-thirumu** (inward centring), imagine “hugging” tissue toward the joint, never poking vertically into a joint line.

When you **stretch**, fix the **proximal** segment first (two-point control) and move **slow-exhale-stop before end-range**. Avoid locking your own elbows or cranking a client into end-range; traction beats compression at **sandhi** (joint rings). Near **sūkṣma/agni marmas** (neck, precordium, umbilicus, pelvis, crown) keep all contacts broad, oblique, and brief.

Ergonomics of client positioning

Position the client so gravity helps you and protects them.

- **Supine**: best for anterior legs, abdomen, chest-parasternal (broad touch only), and neck. Place a **bolster under knees** to slacken lumbar spine; arms supported to avoid brachial plexus strain.
- **Prone**: posterior chain and scapular plane. **Ankle bolster** prevents plantarflexor cramps; adjust face cradle height so cervical spine stays neutral.
- **Side-lying**: shoulder, hip, and lateral rib work, pregnancy, or reflux. Use **three-point support** (head, between knees, under waist).
- **Seated**: short neck/shoulder sets, autonomic settling at the end, or when supine/prone are not tolerated.



Match position to **breathing, circulation, and marma safety**: side-lying or seated for late pregnancy; head-up for reflux or sinus congestion; avoid prone with acute shoulder impingement.

Use of support tools (pillows, bolsters)

Tools make your posture possible and keep pressure predictable.

- **Bolsters/half-rolls**: under knees (supine) or ankles (prone) to unload lumbar spine and hamstrings; between knees in side-lying to protect SI joint.
- **Wedges**: under thorax in prone for larger chests or in side-lying to level the rib cage.
- **Arm shelves/soft blocks**: support abducted shoulder in prone; prevent traction on brachial plexus.
- **Face cradle & towels**: fine-tune neck neutrality and avoid carotid kinking.
- **Non-slip/anti-fatigue mats**: your feet will last longer; slips disappear.
- **Oil holster/pumps**: keep bottles off surfaces; reduce reach and spill risk.

Choose the **least** tool that achieves alignment, then retest comfort and breath.

Avoiding repetitive strain for therapists

RSI prevention is a system: **dose, variety, strength, and signals**.

- **Dose**: plan your day. Cap continuous heavy sessions; rotate region focus; schedule 3-5-minute gaps for cleanup and a micro-reset.
- **Variety**: alternate **forearm, palm, fist** and **elbow (broad, not point)**; avoid long sequences of thumb-led work. Switch leading foot/hand each client.
- **Strength & mobility** (10-12 min daily): hip hinge drills, glute bridges, wall slides/scapular sets, wrist extension/flexion eccentrics, finger extensor band work, calf-ankle mobility.
- **Signals**: tingling, night ache at base of thumb, or elbow sting = **change technique now**; shorten lever (step closer), broaden contact, or stop and refer yourself if symptoms persist.
- **Admin ergonomics**: sit with back supported for notes, screen at eye level, forearms supported—your paperwork posture counts.

Summary Tables

A) Posture quick cues (at a glance)

Area	Do	Don't
Spine & hips	Long spine, hip hinge , ribs soft	Bend from waist, rib flare
Shoulders	Scapula set (down/around), elbows close	Shoulders up to ears, flared elbows
Wrists	Neutral to slight flexion	Ulnar-deviated, thumb jam
Stance	Move from legs; front knee tracks 2nd-3rd toe	Reach with arms; knee valgus
Breath	Exhale on load, inhale on return	Breath hold with push

B) Stroke & stretch alignment rules

Technique	Alignment	Force source	Safety check
Thirumu (long glide)	Forearm in line with back foot → target	Body weight via legs	Pressure steady through exhale
Eduthu-thirumu (lift-knead)	Whole-hand scoop, elbow near ribcage	Legs + trunk, not thumb	No pinch fatigue in 1-2 min



Technique	Alignment	Force source	Safety check
Akam-thirumu (centering)	Draw tissue toward joint, ring-wise	Oblique vector	No vertical jab at joint line
Stretch/traction	Proximal stabilize, slow end-feel	Whole body, not arms	Stop pre end-range; client can breathe

C) Client positioning & bolsters

Scenario	Position	Support	Why
Low-back tightness	Supine	Bolster under knees	Slack hip flexors/lumbar
Posterior chain work	Prone	Half-roll under ankles	Spare knees/Achilles
Shoulder focus, pregnancy, reflux	Side-lying	Head, between knees, under waist	Protects neck/SI, easier breath
Autonomic settle/finish	Seated	Feet planted, back supported	No orthostatic dips; grounded exit

D) Tool selection matrix

Need	Tool	Tip
Neutral neck in prone	Face cradle + towel shims	Level ears-shoulders
Hip/low-back ease	Knee bolster (supine)	Check that lumbar lordosis softens
Shoulder relaxation prone	Arm shelf/bolster	Forearm parallel to floor
Therapist foot comfort	Anti-fatigue mat	Place where you lunge most

E) Therapist RSI prevention checklist

- Warm-up 3–5 min before first client (wrists, scap sets, hip hinges).
- Table height set for task (lower for forearm glides, higher for precision).
- Alternate lead foot/hand; vary contacts (forearm/palm/fist).
- Micro-break each hour: 60–90 s shake-out + 4/6 breath.
- Hydrate and snack (protein + fruit) on long shifts; avoid working dehydrated.
- Red-flag your own symptoms and modify **immediately**; document changes.
- End-of-day 6–8 min strength/mobility circuit; screens down 60 min before sleep.

Practice drills (self-study)

- **Mirror hinge**: stand side-on; practice 10 slow hip hinges keeping spine long.
- **Wall forearm line**: place forearm on wall, step into split stance, and feel the line from back foot → elbow → contact; repeat on both sides.
- **Bolster set-ups**: time yourself setting supine, prone, side-lying supports so the client looks symmetrical and relaxed; check breath ease each time.

Key take-aways

1. Let **bones and stance** carry the load; hands only shape it.
2. Align the **line of drive** and breathe with pressure to keep depth safe and repeatable.
3. Position clients so gravity helps, not fights, your intent; use the **least** tool that creates comfort and access.
4. Prevent RSI with **dose control, technique variety, and daily strength/mobility**—change your method at the **first** warning sign.