



TEAMGOLDUSA USA1 · DRY TESTING · LEVEL 1

Mobility Assessment

Coach administration packet

- 10 standardized mobility measures
- Left/right comparison and compensation notes
- Multi-athlete recording sheet
- Medical boundaries and scientific references

PURPOSE

A repeatable field screen of shoulder, thoracic, hip, hamstring and ankle mobility relevant to streamlined positions and swimming movement. Results guide coaching conversations and retesting; they do not diagnose tissue restriction, pain or injury.

BEFORE TESTING

Use the same trained assessor, device, warm-up, test order and side order whenever possible. Record pain before proceeding. Do not force end range. Stop any test that causes pain, numbness, tingling, dizziness, apprehension or guarding.

A

Active wall streamline

Back, pelvis and head use the same standardized wall contact. Athlete reaches overhead into streamline without forcing the ribs or lumbar spine away from the chosen position.

RECORD Reach quality: clear / compensation. Note wall-contact change, rib flare, elbow bend or side difference.

B

Passive supine shoulder flexion - L/R

Never force

Supine, knees bent. Assessor stabilizes the thorax and moves one arm in the sagittal plane only to a comfortable end point. Use the same inclinometer or goniometer landmarks.

RECORD Degrees left and right; side-to-side difference; symptoms or compensation.

C

Glenohumeral rotation - L/R

Stabilize scapula

Supine, shoulder abducted 90 degrees and elbow flexed 90 degrees. Stabilize the scapula. Measure external rotation and internal rotation separately at comfortable end range.

RECORD ER L/R, IR L/R, total arc L/R (ER + IR), asymmetry and symptoms.

D

Broom overhead reach

Standing tall, palms up at a fixed hand width. Raise the dowel overhead without lumbar extension, rib flare, elbow flexion or grip-width change.

RECORD Maximum reproducible angle if instrumented; otherwise clear / compensation plus notes.

E

Supine chest-opening screen

Supine with arms positioned consistently and thumbs down only if comfortable. Do not force the shoulder toward the floor.

RECORD Side-to-side observation, floor distance if used, symptoms and compensation. Do not label one muscle as the cause.

F

Seated thoracic rotation - L/R

Sit tall with hips and knees standardized; hold a dowel or cross arms to limit arm contribution. Rotate without shifting the pelvis. Use the same measurement method.

RECORD Degrees left and right, asymmetry, pelvic movement and symptoms.

G

Thoracic extension screen

No forced rolling

Use the same supported setup each time. Extend over the designated support without forcing the neck or lumbar spine.

RECORD Clear / limited / symptoms, support position and compensations. This is not a spinal diagnosis.

H

Hip internal and external rotation - L/R

Use a standardized seated or prone position with hip and knee angles fixed. Stabilize the pelvis and measure rotation to comfortable end range.

RECORD IR L/R, ER L/R, total arc L/R, asymmetry and symptoms.

I

Modified Thomas hip-flexor screen - L/R

Two-person safety

At table edge, athlete holds one knee toward the chest while the tested thigh lowers comfortably. Assessor controls pelvic position.

RECORD Thigh position/angle, knee angle if measured, pelvic compensation and symptoms.

J

Straight-leg raise - active and passive - L/R

Supine with opposite leg and pelvis controlled. Athlete first raises the straight leg actively; assessor may then repeat passively to comfortable end range.

RECORD Active and passive degrees L/R. The gap describes active control versus available range; it does not identify one tissue cause.

K

Ankle mobility - L/R

Dorsiflexion: weight-bearing knee-to-wall with heel down and foot aligned; record maximum toe-to-wall distance. Plantar flexion: use a consistent non-weight-bearing goniometric position.

RECORD Knee-to-wall centimeters L/R; plantar-flexion degrees L/R; compensation and symptoms.



Dryland Mobility Assessment

Multi-athlete recording sheet · Q/C = clear or compensation

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Session: Date _____ Assessor _____ Location _____ Device _____

TEST / UNIT	ATHLETE 1	ATHLETE 2	ATHLETE 3	ATHLETE 4	ATHLETE 5	ATHLETE 6	ATHLETE 7	ATHLETE 8
A Wall streamline Q/C								
B Shoulder flexion deg L/R								
C Shoulder ER deg L/R								
C Shoulder IR deg L/R								
C Shoulder total arc deg L/R								
D Broom overhead deg or Q/C								
E Chest opening Q/C or cm								
F T-spine rotation deg L/R								
G T-spine extension Q/L								
H Hip IR deg L/R								
H Hip ER deg L/R								
I Thomas screen angle/Q								
J SLR active deg L/R								
J SLR passive deg L/R								
K Knee-to-wall cm L/R								
K Plantar flexion deg L/R								

STATUS CODE OK = repeatable/pain-free R = retest needed F = coach review STOP = pain/symptoms; discontinue and follow referral process

Record exact values plus notes. Do not convert this sheet into a medical diagnosis or universal pass/fail score. Compare like-for-like retests.

READ BEFORE ADMINISTERING

This is a coach-administered performance screen, not a medical examination. Range of motion varies with age, growth, anatomy, training history, measurement position, warm-up and assessor technique. A single value does not identify the cause of a restriction and does not predict pain or injury by itself.

STOP AND REFER

Stop for pain, numbness, tingling, weakness, dizziness, apprehension, guarding or a concerning side-to-side change. Follow parent/guardian communication, individualized restrictions, return-to-participation requirements and the facility emergency action plan. Qualified clinicians diagnose and prescribe rehabilitation.

INTERPRETATION RULES

- Use exact measures and compensation notes; do not collapse all mobility into one score.
- Prioritize measurement quality and longitudinal change over universal cut points.
- Separate active control from passive range; a difference is descriptive, not diagnostic.
- Shoulder ER + IR total arc and side-to-side differences require sport, symptoms and measurement context.
- Do not infer that unilateral breathing caused an asymmetry from this screen alone.
- Mobility is one contributor to swimming positions; technique, strength, workload and pain history also matter.

SCIENTIFIC JOURNALS - DOI LINKS

McKenzie et al. Shoulder pain and injury risk factors in competitive swimmers: systematic review.

<https://doi.org/10.1111/sms.14454>

Hibberd et al. Effect of swim training on physical characteristics of adolescent swimmers.

<https://doi.org/10.1177/0363546516669506>

Andersen et al. Shoulder roll and hip roll at different front-crawl speeds.

<https://doi.org/10.1519/JSC.0000000000003281>

Johnson et al. Reliability of thoracic spine rotation range-of-motion measurements.

<https://pubmed.ncbi.nlm.nih.gov/22488230/>

Kolber et al. Reliability and validity of active shoulder mobility measurements.

<https://pubmed.ncbi.nlm.nih.gov/22666645/>

Stocker et al. Comparison of shoulder injury in collegiate and masters swimmers.

<https://doi.org/10.1097/00042752-199501000-00002>