

JUST4GK — SENSORY-PERCEPTUAL SYSTEMS FOR GOALKEEPERS: DEEP DIVE

BUILT ON
GOALKEEPER
TRAINING

Goalkeeper Sensory Development Reference | Ages 8-19 | Just4GK Curriculum | www.just4gk.net

Beyond physical development, a goalkeeper's performance is shaped by how well their sensory systems gather, process, and act on information. These six systems — each distinct, each trainable — determine how fast a keeper reads the game, how cleanly they move, how quickly they recover mentally, and how reliably they perform under pressure. This document provides the science, full drill progressions, and game-situation links for every system.

Framework Note: The six-system model below is a Just4GK coaching framework designed to make sensory-perceptual training actionable for goalkeepers. It is not a formal scientific classification — standard sensory taxonomies vary and do not map to this grouping exactly. Some systems (e.g., vestibular) are addressed in depth in the companion Physical & Neuromuscular document. The goal here is practical: give every system a name, a why, and a training protocol that coaches can use.

OVERVIEW — THE 6 SENSORY-PERCEPTUAL SYSTEMS

System	What It Senses	Primary GK Application	Priority	Trainability
Visual Processing	Ball tracking, spatial awareness, threat detection	Shot reading, cross judgment, peripheral awareness	All	Very High
Interoception	Internal body state — fatigue, tension, arousal	Mental reset, composure, arousal regulation	11-19	High
Tactile / Haptic	Touch, pressure, texture in hands & fingers	Catching quality, glove feedback, ball security	All	Moderate-High
Kinesthesia	Sense of movement and force production	Distribution power, dive force, throwing accuracy	All	High
Auditory Processing	Sound location, teammate calls, environment noise	Communication, auditory reaction, crowd filtering	All	Moderate
Chronoception	Time perception and timing accuracy	Cross timing, through-ball rushes, penalty reads	11-19	Moderate-High

How These Systems Work Together: In a real game, no sensory system operates alone. A cross situation demands visual tracking (where is the ball?), vestibular stability (body position in the air), proprioception (landing mechanics), auditory processing (hearing defenders' calls), chronoception (when to leave the line), and kinesthesia (how much force to jump with). Training them individually builds the foundation — game-realistic drills integrate them all.

SYSTEM 1 — VISUAL PROCESSING

HIGHEST PRIORITY

WHAT IT IS

Visual processing for athletes is not the same as eyesight. A keeper can have 20/20 vision and still have poor dynamic visual acuity — the ability to accurately track a fast-moving object. Visual processing encompasses: how well the eyes track a moving ball, how wide the useful field of view is, how accurately the brain judges depth and distance, and how the gaze is directed before and during a save.

WHY IT MATTERS FOR GOALKEEPERS

Every goalkeeper action begins with a visual input. The quality of that input — how early and accurately the keeper detects ball trajectory, spin, and speed — determines the quality of everything that follows. Research on elite vs. sub-elite goalkeepers consistently shows that the gap in performance is more perceptual than physical. Elite keepers see earlier, not just move faster.

- **Dynamic visual acuity:** Tracking a ball struck at 60+ mph requires highly trained eye movement
- **Depth perception:** Judging whether to rush or hold on a through ball
- **Contrast sensitivity:** Tracking in rain, at night, against a packed crowd background
- **Peripheral vision:** Awareness of runners, posts, and defenders without breaking central focus

THE QUIET EYE

The "Quiet Eye" is one of the most well-researched concepts in sports science. It refers to the final gaze fixation on a target before initiating a movement. Studies show elite keepers hold a longer, **earlier**, and more stable gaze fixation on the ball and shooter before diving — locking in their visual anchor sooner than novices, which gives the brain more processing time before committing to a dive. This is the opposite of what anxiety produces (rapid, scattered, late eye movement). Quiet Eye is directly

DRILL PROGRESSION

- 1 Finger Tracking**
Coach moves finger in all planes while keeper tracks with eyes only (head still). Builds smooth pursuit eye movement. 60 sec, all ages.
- 2 Reaction Ball Tracking**
Reaction ball dropped or thrown; keeper watches unpredictable bounce and calls direction before moving. Trains dynamic acuity + prediction.
- 3 Peripheral Awareness Drill**
Coach holds ball centrally; two assistants hold colored objects in periphery. Keeper calls peripheral color while tracking central ball. Dual visual field demand.
- 4 Shooter Read Drill**
Keeper focuses on shooter's plant foot + hip angle before shot. Calls predicted direction aloud before ball is struck. Trains anticipatory gaze, not reactive gaze.
- 5 Quiet Eye Practice**
Before each save rep, keeper verbally identifies one specific visual cue to lock onto (e.g. "laces" or "plant foot"). Holds gaze on that cue until ball is struck. Builds gaze discipline.
- 6 Spin Detection**
Coach strikes ball with deliberate topspin or backspin. Keeper must call spin type before ball reaches them. Trains high-frequency visual detail processing.
- 7 Cross Vision Tracking**
Multiple players moving in box during cross delivery. Keeper must simultaneously track ball AND call the name of the first player to threaten. Full peripheral + central split demand.

trainable through deliberate gaze-control practice.

GAME-SITUATION LINK

Reading a deflection off a defender, tracking a dipping shot, judging a cross in a crowded box, anticipating a penalty kick direction. Every save starts with what the keeper sees — and when they see it.

TOOLS & EQUIPMENT

Tool	Ages	Cost	Value
Reaction Ball	All	~\$10	Unpredictable bounce forces continuous visual tracking; cannot anticipate — must see and react; best low-cost visual training tool available
Colored Discs / Cones	All	Already on hand	Peripheral awareness drills; color-call reaction work; no additional cost
Stroboscopic Glasses	15-19	~\$150-200	Intermittently block vision during movement; forces brain to predict ball position between frames; research-backed visual training tool used at elite level
Vision Training App	11-19	Free-\$20/mo	Contrast sensitivity, peripheral reaction, tracking exercises; EyeGym or Senaptec (professional-grade) are current options; can supplement on-field work

Recruiting Note — Ages 15-19: College coaches increasingly evaluate a keeper's ability to read the game early — not just react to it. A keeper who demonstrates early visual reads (positioning before the shot, anticipating the cross) signals high soccer IQ. Visual processing training directly builds this observable quality.

SYSTEM 2 — INTEROCEPTION

MOST UNDERTRAINED

WHAT IT IS

Interoception is the brain's ability to sense and interpret signals from inside the body — heart rate, breathing depth, muscle tension, fatigue, hunger, and physical arousal levels. It is distinct from proprioception (body position) and is sometimes called the "eighth sense" — a label widely used in sport psychology and occupational therapy, though the exact numbering of senses varies across frameworks. What matters is the function: a keeper with strong interoceptive awareness knows what their body is telling them and can act on that information in real time.

WHY IT MATTERS FOR GOALKEEPERS

The goalkeeper position generates more physiological stress than almost any other in soccer — isolated, high-visibility, mistakes are permanent on the scoreboard. Poor interoception means:

- Not noticing rising anxiety until it has already degraded performance
- Missing signs of physical fatigue that affect reaction time and decision quality
- Inability to self-regulate arousal between high-pressure moments
- Over-tensing muscles before a save — which slows movement and reduces catch quality

Strong interoception means the keeper catches these signals early and responds with a deliberate reset — a breath, a cue word, a posture adjustment — before performance suffers.

THE SCIENCE

Interoceptive signals are processed primarily in the insula cortex — a brain region also involved in emotion regulation and decision-making. Research shows that athletes with higher interoceptive accuracy make better in-game decisions, recover faster from mistakes, and perform more consistently under pressure. Interoception is trainable through mindfulness-based practices, body scan exercises, and deliberate attention to physical state during performance.

GAME-SITUATION LINK

Conceding a goal and playing the next 70 minutes without mentally collapsing. Penalty kicks. Breakaways late in a tied game. Any moment where the body's stress response competes with technical execution — interoception is what allows the keeper to choose the technical response.

Age Note — 8-10: Introduce interoception in simple language: "Take a breath and check in — how does your body feel right now?" This plants the habit early without requiring complex self-reflection. The goal at this age is awareness, not regulation. Regulation comes with maturity and practice.

8 Low-Light / Distraction Training
Occasional reps at dusk or under suboptimal lighting. Forces contrast sensitivity adaptation. Use sparingly — quality of reps matters.

DRILL PROGRESSION — AGES 11-19

- 1 Resting Body Scan**
Before session, keeper sits for 60 sec with eyes closed. Identifies: tension level (1-10), breathing depth, heart rate sensation. Builds baseline awareness.
- 2 Post-Exertion Check-In**
After high-intensity drill block, keeper rates their own fatigue (1-10) and reports to coach. Compare to coach's observation. Builds accuracy of self-assessment.
- 3 Tension Scan During Set Position**
Coach cues keeper to check: Are shoulders tense? Jaw clenched? Hands gripping too tight? Release each one consciously. Trains real-time body awareness.
- 4 Heart Rate Awareness**
After sprints, keeper estimates their own heart rate before checking pulse. Progress: keeper learns to distinguish between "ready arousal" and "over-arousal" by feel.
- 5 Pre-Pressure Drill Scan**
Before a high-pressure scenario (penalty, breakaway simulation), keeper takes 5 sec to scan body state and make one adjustment before the rep begins.
- 6 Mistake Recovery Protocol**
Immediately after a mistake rep, keeper: exhales, names one physical sensation ("shoulders dropped"), and resets with a cue word. Practiced until it becomes automatic.
- 7 Fatigue-State Performance Logging**
Ages 15-19: after each session, keeper logs fatigue level, sleep quality, and tension before the session on a simple 1-10 scale. Over time, patterns emerge that link internal state to performance.

SYSTEM 3 — TACTILE / HAPTIC SENSITIVITY

GK-SPECIFIC

WHAT IT IS

DRILL PROGRESSION — ALL AGES

Tactile sensitivity is the nervous system's ability to detect and interpret touch, pressure, texture, and vibration through the skin — particularly in the hands and fingers. For most athletes this is background noise; for goalkeepers, it is a primary performance input. Everything a keeper catches, parries, or deflects is filtered through their hands first.

WHY IT MATTERS FOR GOALKEEPERS

The difference between a clean catch and a spill often comes down to tactile feedback in the final milliseconds of contact. A keeper with poor tactile sensitivity in wet conditions, cold weather, or with a poorly fitting glove loses the fine feedback that tells the hands how to adjust grip pressure, finger positioning, and wrist angle during the catch.

- **Grip pressure calibration:** Too tight = rigid hands, ball bounces out; too loose = no control
- **Finger positioning feedback:** Sensing whether the catch is centered in the palm or toward fingertips
- **Surface texture detection:** Ball spin and surface texture felt through glove material
- **Impact force feedback:** High-velocity shots deliver significant impact — hands must absorb, not resist
- **Weather adaptation:** Cold and wet conditions reduce tactile acuity — keepers must compensate

THE SCIENCE

The hands contain the highest density of mechanoreceptors in the body — Meissner's corpuscles (light touch/texture), Pacinian corpuscles (vibration/pressure), Merkel's discs (sustained pressure), and Ruffini endings (skin stretch). These receptors together create a rich tactile map.

Research in manual dexterity sports shows that deliberate tactile training — particularly varied-surface and varied-force catching work — improves cortical processing of tactile input over time. The brain expands its neural map for fine finger discrimination, increasing signal quality at the processing level. The receptors themselves provide the raw input; training makes the brain better at reading it.

GAME-SITUATION LINK

Clean catch under a corner kick. Holding a wet ball after a diving save in the rain. Absorbing a close-range volley without a spill. Catching a back-pass with textured turf grip. Tactile sensitivity is the difference between possession and a second chance for the opponent.

Glove Note: Glove fit directly affects tactile feedback quality. An oversized glove reduces mechanoreceptor input by creating distance between finger and ball. Encourage keepers to wear the smallest glove that is comfortable — snug fit across the palm and fingers maximizes the brain's ability to process catch feedback. This is worth discussing with your Kiepps partnership contact.

1 Bare-Hand Catching

5–10 min of catching work without gloves, once per week. Forces the brain to rely on raw tactile feedback rather than glove padding. Dramatically increases hand sensitivity.

2 Varied Ball Surface Work

Catch reps with a wet ball, a textured ball, a flat ball, and a standard ball in the same session. Brain learns to adapt grip pressure to surface feedback.

3 Eyes-Closed Catching

Short-range, slow toss. Keeper catches with eyes closed. Forces complete reliance on tactile + proprioceptive feedback in the hands. Start close, progress to mid-range.

4 Grip Pressure Awareness

Coach tosses ball; keeper catches and consciously identifies grip pressure used (light / medium / firm). Then deliberately catches with each pressure level. Builds calibration control.

5 Cold Water Immersion + Catch

Hands in cold water 30 sec (mimics cold-weather conditions and reduced tactile acuity from cold), then immediate catching work. Trains adaptation to reduced feedback. Ages 11–19. **Coaching note:** Reduce ball velocity during cold-hands reps — the impaired sensation increases mishandling risk. Quality of catch mechanics matters more than pace here.

6 High-Velocity Absorption Drill

Keeper catches firm shots with deliberate "give" in wrists and hands — absorbing rather than resisting impact. Trains Pacinian receptor response to impact force.

7 Fingertip Control Catches

Small ball (tennis ball) catching with fingertips only — no palm contact. Forces maximum tactile receptor engagement in the fingertip mechanoreceptors.

SYSTEM 4 — KINESTHESIA

FORCE & MOVEMENT SENSE

WHAT IT IS

Kinesthesia is the sense of movement and force — specifically the awareness of how the body is moving and how much force it is producing, in real time. While proprioception tells you where your body is (position), kinesthesia tells you how your body is moving (velocity and force). The two work closely together and share the same primary receptors (muscle spindles and Golgi tendon organs), but they carry different types of information: proprioception encompasses static position sense; kinesthesia focuses on movement, velocity, and force production in motion.

WHY IT MATTERS FOR GOALKEEPERS

Every goalkeeper distribution action relies on kinesthesia. When a keeper throws to a fullback 30 yards away, they don't measure the distance — they feel the force needed and apply it. When they dive for a low ball at the post, they feel the momentum of their body through space and make micro-adjustments mid-dive. Without accurate kinesthetic feedback, distribution is inconsistent and body control in the air is imprecise.

- **Distribution consistency:** Same force, same target, every time — even under pressure
- **Dive control:** Knowing how much push is needed to reach a specific zone of the goal
- **Force calibration:** Goal kicks and punts adjusted for wind, distance, target player
- **Mid-air adjustment:** Sensing body position while airborne to make late adjustments to catch or punch

DRILL PROGRESSION — ALL AGES

1 Blind Distribution

Keeper turns away from target, receives ball, turns and distributes to a target they last saw. No visual confirmation during throw. Pure kinesthetic force calibration.

2 Distance Calibration Throws

4 cones at 10, 20, 30, 40 yards. Keeper throws to each without running up — adjusting force only. Repeat until all four distances feel distinct.

3 Mid-Air Ball Adjustment

High toss; keeper jumps and adjusts hand position to catch a ball that drifts during jump. Trains kinesthetic correction while airborne.

4 Force Matching

Coach throws ball to keeper at specific force level. Keeper must return at identical force. Builds force-matching neural pathway. Progress: match while fatigued.

5 Varied Ground Surface Diving

Same dive drill on dry grass, wet grass, and turf. Keeper learns how surface affects push force and adjusts. Real kinesthetic adaptation.

6 Eyes-Closed Distribution

Keeper closes eyes briefly at ball release point during a throw. Trains proprioceptive + kinesthetic control independent of visual guidance. Ages 13+.

THE SCIENCE

Kinesthesia is primarily served by muscle spindles (detecting rate of stretch) and Golgi tendon organs (detecting tension and force). These receptors feed into the cerebellum — the brain region responsible for movement coordination and force calibration. Deliberate practice with varied force demands (throwing to different distances, jumping at different heights) refines these neural signals and improves movement precision.

GAME-SITUATION LINK

Throwing precisely to a fullback under pressing pressure. Punting accurately into a headwind. Reaching a ball in the top corner with exactly enough body extension. Distribution range and consistency — a primary recruiting evaluation point — are built on kinesthetic precision.

A keeper who distributes with consistent precision under pressure signals advanced kinesthetic development. This is a differentiator that specialized GK training produces and general soccer programs miss entirely.

SYSTEM 5 — AUDITORY PROCESSING

COMMUNICATION & REACTION

WHAT IT IS

Auditory processing in sport refers to how the brain receives, locates, filters, and responds to sound during performance. For goalkeepers, this involves two distinct functions: reactive processing (responding to auditory cues in training) and spatial processing (locating and filtering meaningful sounds — teammate calls, referee whistles, ball impact sounds — from background noise during a match).

WHY IT MATTERS FOR GOALKEEPERS

The goalkeeper communicates more than any other player on the field. Effective communication depends on the keeper being able to both send and receive sound information accurately — even under crowd noise, in adverse weather, or in high-arousal moments when auditory filtering degrades.

- **Sound localization:** Knowing where a call is coming from without looking
- **Auditory reaction:** In some situations, sound cues precede visual cues — a shot struck just outside peripheral vision
- **Crowd noise filtering:** Identifying a defender's call against 2,000 screaming spectators
- **Ball impact sound:** Experienced keepers read pace and spin from the sound of ball-to-boot contact before they fully track it visually

THE SCIENCE

Auditory reaction time (~180-200ms average) is faster than visual reaction time (200-250ms average). This means that in situations where a sound precedes a visual cue — a shot struck out of sight, a deflection with an accompanying impact sound — training auditory reactions can produce a measurable performance advantage.

Sound localization uses three overlapping cue types: interaural time differences (the arrival-time gap between ears, dominant for low-frequency and horizontal direction), interaural level differences (intensity differences between ears, dominant for high-frequency sounds such as ball-to-boot contact), and spectral cues shaped by the outer ear — all processed together to triangulate a sound's direction and elevation. This process is trainable through directional auditory exercises.

GAME-SITUATION LINK

Hearing a defender call "man on" while tracking a high ball. Reading the pace of a shot struck just outside peripheral vision. Organizing a back four in a stadium environment. Auditory processing is what makes a keeper's communication system work under real match pressure.

Communication Note: Auditory processing and communication are two sides of the same coin. A keeper who can hear better under noise conditions communicates more confidently — because they know their calls are landing. Build auditory processing into communication drills rather than treating them as separate. One drill, two adaptations.

SYSTEM 6 — CHRONOCEPTION

TIMING & ANTICIPATION

WHAT IT IS

Chronoception is the brain's ability to perceive and accurately judge the passage of time — and to use that perception to time physical actions with precision. In sport it manifests as the ability to leave the line at the right moment, time a jump correctly, and delay a diving commitment long enough to gather maximum information before committing. It is trainable

7 Wind / Condition Adjustment Drills

Practice goal kicks and punts under different wind conditions deliberately. Keeper narrates force adjustment made. Builds conscious kinesthetic calibration vocabulary.

DRILL PROGRESSION — ALL AGES

1 Eyes-Closed Direction Call

Coach stands in various positions around keeper (eyes closed). Keeper points to coach's voice location without looking. Builds sound localization accuracy.

2 Auditory Reaction Dive

Coach calls "left" or "right" while keeper faces away. Keeper turns and dives to called direction. Trains auditory-to-movement reaction chain.

3 Ball Strike Sound Read

Coach strikes ball from behind a screen (keeper can't see the strike). Keeper reacts to the sound of ball contact — reads pace and direction from auditory input alone.

4 Communication Under Noise

Run drills with music or crowd noise playing (phone speaker). Keeper must still give and receive calls clearly. Trains vocal projection and auditory filtering simultaneously.

5 Blind Cross Organization

Keeper faces away from field. Coach describes incoming cross verbally; keeper must organize verbally ("keeper's ball!" or "away!") based only on audio description. Trains sound-to-decision chain.

6 Multi-Source Filtering

Two coaches give simultaneous instructions. Keeper must identify and respond to the correct (pre-agreed) voice. Trains selective auditory attention in chaotic environments.

DRILL PROGRESSION — AGES 11-19

1 Time Estimation Exercise

Keeper closes eyes, estimates when 5, 10, and 15 seconds have passed, signals coach. Coach records accuracy. Builds raw temporal awareness as a baseline.

but often entirely neglected at youth level.

WHY IT MATTERS FOR GOALKEEPERS

Timing errors are among the most common goalkeeper mistakes — leaving the line too early on a through ball, jumping too soon on a cross, diving before reading the shot direction on a penalty. These are not errors of technique — they are errors of time perception.

- **Penalty kicks:** The keeper who dives "early" is doing so because their chronoception is poor — they can't hold the committed position long enough to gather information
- **Cross timing:** Leaving the line a half-second too early or late is the difference between a clean claim and a collision
- **Through ball rushes:** Misjudging the time it takes the ball to arrive relative to the attacker's speed = wrong decision
- **Set piece positioning:** Knowing when to step off the line on a delayed free kick

THE SCIENCE

Time perception is processed across multiple brain regions — the basal ganglia (interval timing), cerebellum (sub-second timing), and prefrontal cortex (prospective timing). Under high arousal states — exactly what a goalkeeper experiences on a penalty kick — time perception distorts. Research on time perception under arousal suggests that high arousal can make time feel slower subjectively, which may counterintuitively contribute to early commitment because the brain believes more time has passed than actually has. This is a working coaching model based on the arousal-timing distortion literature, and the effect is complex (research shows both slowing and compression depending on context). What is well-established is the practical outcome: training chronoception specifically under arousal conditions helps correct the distortion.

GAME-SITUATION LINK

The penalty kick. The through ball rush. The cross claim from the 6-yard box. The step off the line on a free kick. Every high-stakes goalkeeper timing moment is a chronoception event — and every one of them is trainable.

Penalty Kick Note: Research consistently shows that goalkeepers who commit later — giving themselves maximum time to read pre-contact cues — save significantly more penalties, and that the tendency to dive early reflects action bias rather than optimized decision-making (Bar-Eli et al., 2007; Dicks et al., 2010). This is pure chronoception training: learning to hold position under extreme arousal pressure. Build penalty delay holds into every 15–19 session block that includes penalty work.

SECTION 2 — SESSION INTEGRATION

These systems don't require separate training blocks. They integrate directly into the existing Just4GK session framework alongside physical and technical work. The table below shows how each system maps to the current session structure.

Session Block	Duration	Sensory Systems to Layer In
Check-in / Goal Setting	0-5 min	Interoception — body scan, arousal check-in, tension release
Technical Activation	5-15 min	Tactile sensitivity (bare-hand work), visual tracking (finger tracking, reaction ball), kinesthesia (distance calibration throws)
Skill Block	15-35 min	Visual processing (Quiet Eye, spin detection), auditory processing (calls under noise), kinesthesia (force calibration)
Game-Realistic Scenario	35-50 min	Chronoception (rush timing, cross departure), auditory processing (multi-source), visual processing (peripheral + central split)
Review / Next Steps	50-60 min	Interoception — post-session fatigue rating, what did their body tell them today?

SECTION 3 — TRACKING RECOMMENDATIONS

System	Tracking Method	Frequency	Age Group
Visual Processing	Shooter read accuracy (% correct direction calls)	Weeks 1, 5, 10	All
Interoception	Fatigue / arousal self-rating accuracy vs. coach assessment	Each session	11-19
Tactile Sensitivity	Clean catch % bare-handed vs. gloved (same drill)	Weeks 1 and 10	All
Kinesthesia	Distribution accuracy to distance targets (% within 2 yards)	Weeks 1, 5, 10	All
Auditory Processing	Sound localization accuracy (% correct direction)	Weeks 1 and 10	All
Chronoception	Time estimation accuracy (% within 1 sec); penalty delay holds (early vs. on-time)	Weeks 1, 5, 10	11-19

- 2

Ball Arrival Prediction
Coach kicks ball from distance; keeper calls "now" at the moment they predict the ball will cross the line. No diving — just prediction. Develops ball travel time calibration.
- 3

Rush Timing Decision
Through ball played with 2-second head start for "attacker" (cone). Keeper must decide GO or HOLD based purely on timing read. Repeat at varied speeds until decisions become accurate.
- 4

Cross Departure Timing
Coach swings cross from flank. Keeper must leave line at maximum-late moment and still claim. Progress: add a forward to increase decision pressure. Trains delayed commitment.
- 5

Penalty Delay Hold
During penalty practice, keeper must hold set position until ball is struck (not before). If keeper dives early, rep doesn't count. Trains commitment delay under pressure — the hardest timing skill for keepers to develop.
- 6

Arousal-State Timing
Same timing drills performed after a 30-second sprint (elevated heart rate). Keeper tracks whether arousal state affects timing accuracy. Builds awareness of the arousal-timing distortion effect.
- 7

Timing Log
Ages 15–19: after each timing drill block, keeper notes whether they felt they were timing early, late, or on. Coach confirms. Over a 10-week block, the keeper develops a personal timing profile they can reference.

SECTION 4 — COACHING NOTES BY AGE GROUP

Age	Systems Focus	Coaching Approach	Language to Use
8-10	Visual, Tactile, Kinesthesia basics	Keep all sensory work embedded in games and fun challenges, not drills. The word "feel" is your best tool at this age. "What did you feel when you caught that?"	"Watch it all the way in." "Feel the ball in your hands." "Did that throw feel right?" "What did you hear?"
11-14	Visual (Quiet Eye), Interoception intro, Chronoception intro, Auditory	Start naming the systems. These athletes can understand concepts like "you're reading the shooter" or "your timing was early." Introduce self-assessment vocabulary. Ask what they noticed.	"What were you looking at?" "How did that timing feel?" "Check in — how's your tension level?" "Where was that call coming from?"
15-19	All systems — full depth, tracked	Treat them as emerging athletes who own their development. Share the science. Let them analyze their own data. Ask them to coach a younger keeper on one sensory concept — teaching it deepens their own understanding.	"Your Quiet Eye broke early — what were you looking for?" "Your timing log shows you're consistently early under fatigue." "What was your interoception telling you before that penalty?"

Physical development determines what the body can do. Sensory-perceptual development determines what the mind can process. The keeper who combines both — explosive power AND sharp visual reads, strong proprioception AND accurate chronoception — is operating at the level college coaches recruit and elite programs develop. Every one of these systems is trainable. Every session is an opportunity to sharpen them.

Just4GK — Training Excellence. One Session at a Time.

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