



Clinical Protocol



Purpose and Scope

This Clinical Protocol Guide serves as a practical reference for Clinical Directors and Clinical Volunteers conducting Health Promotion (HP) screenings under Healthy Athletes System 2.0 (HAS 2.0). It integrates HAS 2.0 screening thresholds, referral logic, and operational guidance from the Health Promotion resources to support consistent, high-quality implementation during screening events.

This guide applies only to the core clinical screening stations—Body Composition, Bone Density/Bone Health, and Blood Pressure—and does not include the screening and education stations (e.g., Nutrition & Hydration, Physical Activity, Sun Safety, Handwashing, Tobacco Avoidance).

Health Promotion is a non-invasive screening and education discipline. All activities are designed to support health awareness, self-efficacy, and appropriate referral—not diagnosis or treatment.

Clinical Director Authority

The Clinical Director is the final authority for all clinical decisions during a Health Promotion screening event. Responsibilities include:

- Oversight of screening accuracy and protocol adherence
- Volunteer training and supervision
- Interpretation of screening results
- Determination of referral level (Routine, Non-Urgent, Urgent)
- Escalation to on-site medical services when needed

While referral thresholds guide decision-making, clinical judgment always determines final action.

Core Screening Flow

1. Check In & Health History
2. Body Composition
3. Bone Density & Bone Health
4. Blood Pressure
5. Screening and Education Stations (Nutrition, Physical Activity, etc.)
6. Check Out & Referral Delivery

Estimated total screening and education time: ~30 minutes per athlete



1. Body Composition

Purpose

To identify potential nutrition- and weight-related health risks and guide education or referral.

Volunteers & Roles

Clinical Volunteers: Conduct measurements, explain process, record results

General Volunteers: Athlete flow, privacy support, sanitation

Measurement Protocol

1. Confirm athlete identity in HAS.

2. Measure height

- a. Ask the athlete to stand tall and face the volunteer, looking straight ahead
- b. Make sure there are three points of contact with the stadiometer – head, buttocks, and heels aligned
- c. Lower the headboard of the stadiometer until it touches the top of the athlete's head and creates a right angle with the measurement surface
- d. Read and record the height (where the bottom of the headboard touches the measuring tape) to the nearest centimeter

3. Measure weight

- a. Ask the athlete to remove shoes and heavy items
- b. Zero the scale and ensure it is on kilograms
- c. Ask the athlete to step on the scale in the center and to stand still while the scale measures
- d. Read and record the weight to the nearest 0.1 kilogram

4. Measure waist circumference

- a. Ask the athlete to remove shoes and bulky outer clothing
- b. Ask the athlete to stand upright, with arms relaxed at sides, and feet shoulder-width apart
- c. Locate the measurement site – midpoint between the lowest rib and the top of the hip bone (iliac crest)
- d. Wrap the tape horizontally around the abdomen at the midpoint



- e. Tape should be snug but not tight, flat against the skin (not twisted), and parallel to the floor
 - f. Measure at the end of the athlete's normal breath
 - g. Read and record the measurement to the nearest 0.1 cm
5. Enter values immediately into HAS; system auto-calculates Body Mass Index (BMI) and Waist-to-Height Ratio (WHtR) if using digital tablets. If using paper forms, calculate BMI and WHtR manually, or use approved apps, calculators, or reference tools to accurately obtain these values before recording them on the HAS form.

HAS Recording

Measurements

- Screener name
- Height in centimeters
- Weight in kilograms
- Waist circumference in centimeters
- BMI value (or BMI percentile for athletes under 20 years of age)
- WHtR value

Additional HAS Questions

- *Unable to test because athlete:*
 - Refused to perform / Unable to perform / Unable to understand / Other (specify)
- *Would you say your health in general is:*
 - Excellent / Very Good / Good / Fair / Poor / I don't know / Did not answer
- *Have you ever been told by a doctor or health professional that you have raised blood sugar or diabetes?*
 - Yes / No / I don't know / Did not answer
 - *If yes:*
 - Are you currently taking medication for diabetes?
 - Are you following a diet, exercise, or weight-control plan for diabetes?
- *About how long has it been since your last routine doctor visit?*
 - Within past year / Within past 2 years / Within past 5 years / More than 5 years / I don't know / Did not answer



Referral Guidance

- **Adults (≥ 20):**
 - BMI < 18.5 or ≥ 25 → Non-Urgent Referral
 - WHtR < 0.4 or ≥ 0.5 → Non-Urgent Referral
- **Youth (2–19):**
 - BMI < 5 th or ≥ 86 th percentile → Non-Urgent Referral

Clinical Tips

- Use respectful, non-stigmatizing language.
- Explain measurements before touching equipment.
- Prioritize athlete comfort and dignity.

2. Bone Density & Bone Health

Purpose

To support bone health awareness and identify athletes who may benefit from follow-up using non-invasive ultrasound screening.

Eligibility

- Bone density screening is offered to athletes age 20 and older.
- Bone health education is provided to all athletes, regardless of screening completion.

Volunteers & Roles

Clinical Volunteers Only: Device operation, result interpretation

General Volunteers: Flow and sanitation

Measurement Protocol

1. Explain the procedure in simple, reassuring terms.
2. Seat the athlete approximately 12–18 inches from the scanner; shoes and socks removed.
3. Test the athlete's bare left foot first:
 - a. Ensure the center of the heel is snug against the center of the positioning contour (heel cup).
 - b. Confirm the foot is fully positioned in the well.



- c. Align the positioning line with the space between the athlete's second and third toes.
- d. Ensure the athlete's heel is touching the back of the heel cup.
4. Read and record the left foot T score immediately in HAS.
5. Test the athlete's bare right foot using the same positioning steps.
6. Use the lower (more concerning) T score for clinical decision making.
7. Record all results immediately in HAS.

HAS Recording Measurements

- Screener name
- Left/right T-score (with +/- sign)
- Fracture history

Additional HAS Questions

- *Unable to test because athlete:*
 - Refused to perform / Unable to perform / Unable to understand / Athlete is under 20 years old / Other (specify)
- *Have you ever fractured or broken a bone?*
 - Yes / No / I don't know / Did not answer
 - *If yes:*
 - Which bone(s) were broken? (free text)

Referral Guidance

- T-score ≥ -1.0 → Education Only
- T-score -1.0 to -2.5 → Non-Urgent Referral
- T-score < -2.5 or fracture history → Urgent Referral
- T-score $> +3.4$ → Urgent Referral (possible heavy metal exposure)

Clinical Tips

- Always explain what the athlete will feel.
- Reinforce positive bone-health behaviors.
- Sanitize equipment after each use.



3. Blood Pressure

Purpose

To identify elevated or high blood pressure using age-specific thresholds.

Volunteers & Roles

Clinical Volunteers Only: BP measurement and interpretation

General Volunteers: Flow and sanitation

Measurement Protocol

1. Measure blood pressure in the right arm first.
 - a. If the right-arm reading is within the normal range, no further measurements are needed.
2. If the right-arm reading is abnormal, measure blood pressure in the left arm.
3. The left-arm blood pressure is only taken if the right-arm reading is abnormal, if there's a situation that prevents us from taking the right arm, or if the provider determines it's appropriate.
 - a. If the left-arm reading is normal, we can stop at that point and no referral is generated.
 - b. If the left-arm reading is abnormal, a referral will be generated based on the existing logic of two abnormal blood pressure readings, and the optional final reading may be taken if needed.
4. The optional final blood pressure is not required. It's only there to support decision-making in situations where an additional reading is helpful.
 - a. Athletes may need to sit quietly and rest, with legs uncrossed, for 5-10 minutes between blood pressure tests if inconclusive.
5. Enter final reading in HAS.

HAS Recording

Measurements

- Screener name
- Right arm systolic and diastolic values



- Left arm systolic and diastolic values (if obtained)
- Final reading of systolic and diastolic values (if used)

Additional HAS Questions

- *Unable to test because athlete:*
 - Refused to perform / Unable to perform / Unable to understand / Other (specify)
- *Have you ever been told by a doctor or health professional that you have high blood pressure?*
 - Yes / No / I don't know / Did not answer
 - *If yes:*
 - Are you currently taking prescription medication for high blood pressure?
 - Yes / No / I don't know / Did not answer

Referral Guidance

- **Adults (≥18):**
 - <90/<60 → Non-Urgent Referral
 - 120–129/<80 → Non-Urgent Referral
 - ≥140/90 → Urgent Referral
 - ≥180/120 → Immediate Medical Services
- **Youth:** Age-specific percentile thresholds apply

**If the athlete is competing and in Hypertensive Crisis for repeated readings, you are required to notify the coach, and Clinical Director or Discipline Manager who will initiate the medical event response.*

Clinical Tips

- Ensure correct cuff size.
- Create a calm environment.
- Repeat readings when appropriate.



4. Data Review & Check Out

Clinical Review Rule

- Review all screening results together.
- Select the single highest-severity referral.
- Document referral type, reason, and provider (if applicable) in HAS.

Referral Levels

- Routine: Continue existing care
- Non-Urgent: Follow-up within 4 weeks
- Urgent: Follow-up within 2 weeks

Referral conversations must be handled by experienced clinical volunteers or the Clinical Director.

Documentation & Data Quality

- Verify all HAS fields are complete and accurate
- If an athlete is unable or unwilling to complete a measurement or answer a question, clinical volunteers must select the appropriate “Unable to test” or “Did not answer” option and document the reason rather than leaving fields blank.
- Protect athlete privacy at all times
- Collect and secure paper forms if used

High-quality data supports program improvement and health equity for athletes with IDD.

