

IMPULSE

Coach & Trainer Guide

Set up your team, pair sensors, and monitor athletes for head impacts

Version 1.0 · [August 2026] · App version [1.0]

Contents

1. About This Guide	3
2. System Overview	3
3. What's in the Box	3
4. Getting Started	4
Charge the sensors	4
Install the app	4
Sign in as a coach	4
5. Create Your Team	5
Share your team's join code	5
6. Add Players	6
Players with their own account	6
Device Players (no account)	6
7. Register & Assign a Sensor	7
Register a sensor	7
Calibrate orientation	8
Assign the sensor	8
8. Adjust a Player's Alert Threshold	9
9. Fitting the Sensor	10
10. Live Monitoring During a Session	10
11. Understanding Impact Alerts	11
When an alert fires	12
12. Reviewing History	13
13. Settings Reference	13
14. Troubleshooting	14
15. Concussion Awareness	15
16. Support & Contact	15

1. About This Guide

This guide is for coaches and athletic trainers using the Impulse app to monitor athletes for head impacts. It covers setting up your team, registering and assigning sensors, monitoring a live session, and responding when the app flags an impact.

What Impulse does. Each athlete wears an Impulse sensor — a small Bluetooth head-impact sensor. During a session the sensor measures impacts and streams them to the Impulse app on your phone or tablet. When an impact crosses your alert threshold, the app raises a real-time alert so you can check that athlete right away.

Important — read before first use

Impulse is a monitoring and awareness tool. It does not diagnose concussions or any injury.

An alert means an athlete should be checked — not that they are, or are not, concussed. A hard hit that produces no alert still deserves your judgment.

Always follow your organization's concussion protocol. Remove any athlete from play when a head injury is suspected, regardless of what the app shows, and refer to a qualified medical professional. When in doubt, sit them out.

2. System Overview

The system has three parts:

- **The sensor** — a Bluetooth head-impact sensor worn by the athlete (shown in the app as Impulse-IH-XXXXXX). One sensor per athlete. *Add the form factor and where/how it's worn.*
- **The Impulse app** — the coach view, where you manage teams, register sensors, and monitor sessions.
- **Charging & storage** — USB-C charging cable

The app is organized around five tabs along the bottom of the screen:

- **Home** — live view of your team during a session.
- **History** — daily session summaries once players start recording.
- **Alerts** — join requests and recent impact alerts.
- **Teams** — your teams, their join codes, and rosters.
- **Settings** — your profile, devices, alert threshold, units, theme, and support.

In one line: **impact detected** → **streamed over Bluetooth** → **app evaluates it** → **alert if it crosses your threshold**.

3. What's in the Box

List the kit contents so a coach can confirm nothing is missing — e.g. [N] sensors, charging case / cable, quick-start card, and any mounts or fitting accessories.

4. Getting Started

Charge the sensors

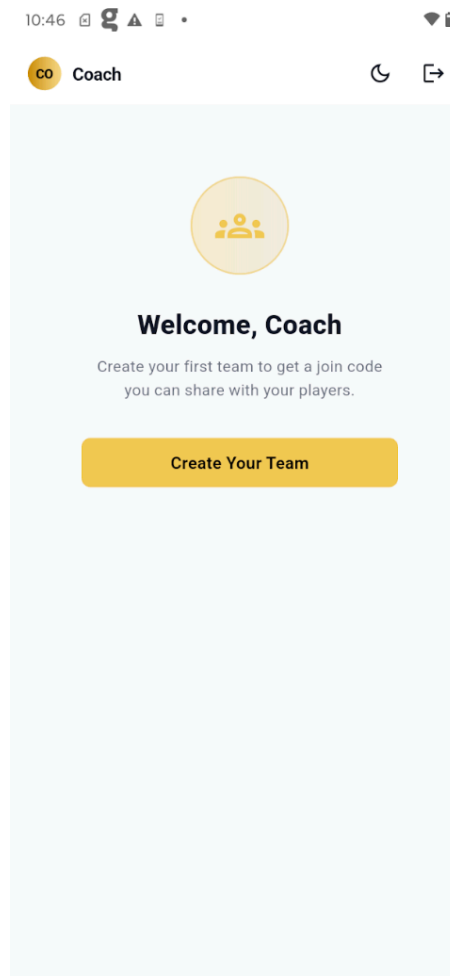
Charge every sensor fully before first use. *Explain how: where it connects, what the charging indicator shows, and roughly how long a full charge takes.*

Install the app

Download **Impulse** from the Google Play Store, then allow Bluetooth and notification permissions when prompted. The app can't find sensors or alert you without them.

Sign in as a coach

Open the app and sign in with your coach account. On first launch you'll be prompted to create your first team.



First launch — tap Create Your Team to begin.

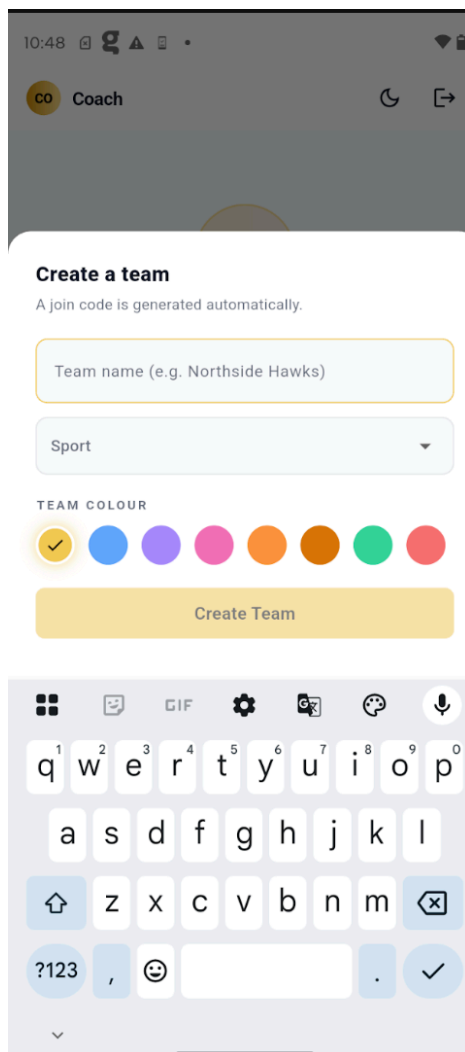
5. Create Your Team

Everything in Impulse hangs off a team. Create one first.

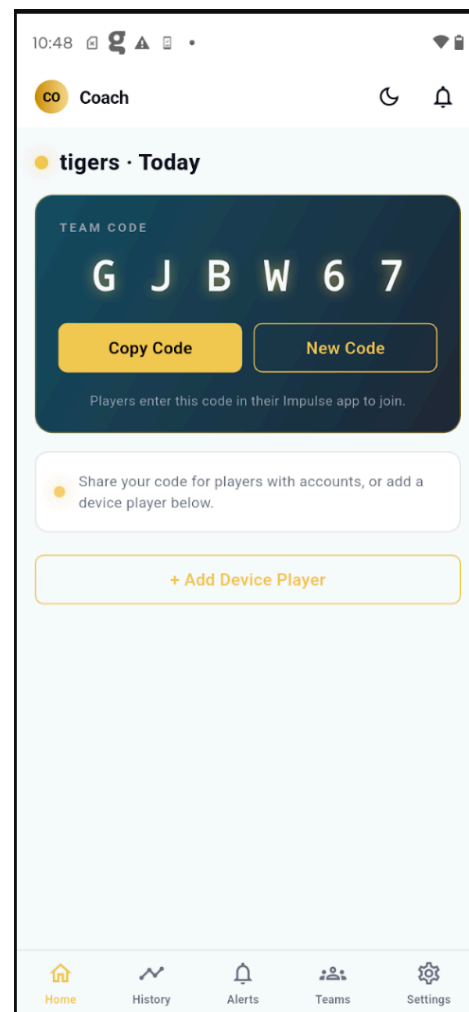
1. Go to the **Teams** tab and tap **Create New Team** (or **Create Your Team** on first launch).
2. Enter a **Team name** (for example, Northside Hawks), choose the **Sport**, and pick a **team colour**.
3. Tap **Create Team**. A join code is generated automatically.

Share your team's join code

Every team has a **TEAM CODE** (for example, GJBW67). Players who have their own Impulse account join by entering this code in their app. Use **Copy Code** to share it, or **New Code** to regenerate it. To record athletes who don't have an account, use **+ Add Device Player**.



Create a team — name, sport, and colour.



The team home, showing its join code.

6. Add Players

There are two kinds of players, depending on whether the athlete has their own account.

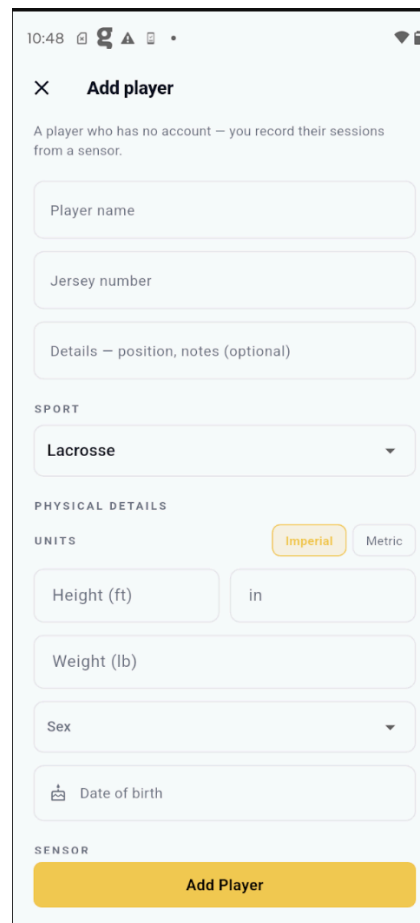
Players with their own account

Share the team code. When a player enters it in their app, their request appears under **Join Requests** in the **Alerts** area. *Confirm the approval step — how you accept a request.*

Device Players (no account)

For athletes who don't have their own account, add them as a **Device Player** — you record their sessions from a sensor.

1. Open your team and tap **+ Add Device Player**.
2. Fill in **Player name**, **Jersey number**, and optional **Details** (position, notes).
3. Set the **Sport** and **Physical details** — choose **Units** (Imperial or Metric), then height, weight, sex, and date of birth.
4. Under **Sensor**, register or assign the athlete's sensor (see the next section).
5. Tap **Add Player**.

The image shows a mobile app interface for adding a new player. At the top, the status bar shows the time 10:48 and various icons. The app header has a back arrow and the title 'Add player'. Below the title is a subtitle: 'A player who has no account — you record their sessions from a sensor.' The form consists of several sections: 1. 'Player name' (text input), 2. 'Jersey number' (text input), 3. 'Details — position, notes (optional)' (text input), 4. 'SPORT' section with a dropdown menu currently set to 'Lacrosse', 5. 'PHYSICAL DETAILS' section which includes: - 'UNITS' with two buttons, 'Imperial' (highlighted in orange) and 'Metric', - 'Height (ft)' (text input) and 'in' (text input), - 'Weight (lb)' (text input), - 'Sex' (dropdown menu), - 'Date of birth' (calendar icon and text input), 6. 'SENSOR' section with a large orange button labeled 'Add Player'.

The Add Player form for a Device Player.

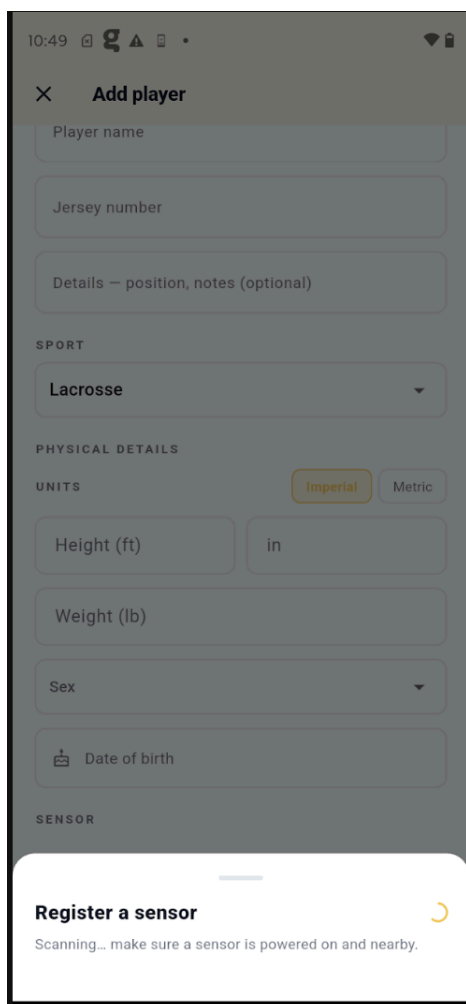
Each player is created at their personalized **base threshold**. You can fine-tune how sensitive their alerts are after creation — see **Adjust a Player's Alert Threshold**.

7. Register & Assign a Sensor

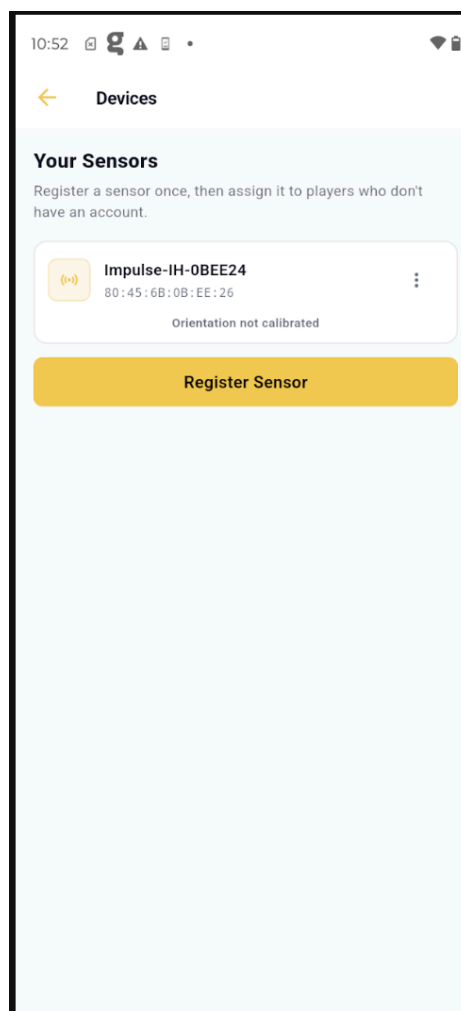
Each Device Player is linked to a physical sensor. You register a sensor once, then assign it to a player.

Register a sensor

1. In the **Add Player** screen (or **Settings** → **Devices**), under **Sensor** tap **Register a sensor**.
2. Power the sensor on and keep it close to your phone. The app scans over Bluetooth: *“Scanning... make sure a sensor is powered on and nearby.”*
3. Discovered sensors appear as Impulse-IH-XXXXXX with their address and signal strength. Tap the one you want to register.



Scanning for nearby sensors.



Devices — your registered sensors.

Calibrate orientation

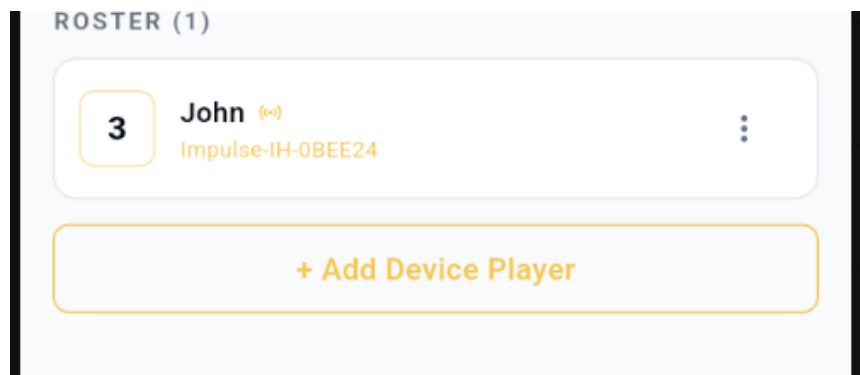
A sensor may show “**Orientation not calibrated.**”

The coach calibrates the sensor through the Impulse app after securely attaching it to the athlete’s helmet and clicking the Calibrate button. Calibration establishes the sensor’s baseline and orientation, helping ensure accurate impact measurements and reduce false alerts. This process should be repeated whenever the sensor is repositioned or attached to a different helmet. . Calibration is what lets the app report impact **direction** (front / left / right / back) accurately.

Calibration is what lets the app report impact **direction** (front / left / right / back) accurately.

Assign the sensor

Assign the registered sensor to the player on the **Add Player** screen. The team roster then lists the player with their sensor.



The roster shows each player with their assigned sensor.

8. Adjust a Player's Alert Threshold

Each player has their own alert threshold — the impact level, in G, at which Impulse raises an alert for that athlete. When you add a player, the app sets a personalized **base threshold** from their profile (physical details such as age, height, weight, and sex), so a smaller, younger athlete and a larger, older one don't share the same trigger point. New players always start at their base; you fine-tune sensitivity afterward.

To adjust it, open the player and tap **Edit**. The **Threshold Adjustment** control shows the current setting as a multiplier and a G value — for example, *1.00x (13.8 G)* — *base threshold*. Use the slider, or type a value directly in the field:

- Toward **More sensitive** lowers the G value, so the app alerts on smaller impacts.
- Toward **Less sensitive** raises the G value, so only larger impacts alert.
- **1.00x** is the base. **Reset** returns the player to it.

The **Current setting** line beneath the control always reflects the value in effect. Adjust in line with your concussion protocol, and be deliberate about raising a threshold — a less-sensitive setting means some impacts won't trigger an alert. When in doubt, leave a player at their base.

The screenshot shows a mobile app interface titled "Edit player". At the top, there's a status bar with the time 3:15 and various icons. Below the title bar, there are two tabs: "Imperial" (selected) and "Metric". The form contains several input fields: "Height (ft)" with the value 5, "in" with the value 0, "Weight (lb)" with the value 140, a "Gender" dropdown menu set to "Male", and a "DOB" field with the value 2012-09-16 and "14 yrs" displayed. Below these is a "THRESHOLD ADJUSTMENT" section. It features a slider control with a yellow dot in the middle, labeled "Threshold adjustment: 1.00x (13.8 G) — base threshold". Below the slider are labels "Less sensitive", "Base", and "More sensitive". A text input field shows the value "13.8" and a "Reset" button. Below this, it says "Current setting: 1.00x (13.8 G) — base threshold". There is a "SENSOR" section with a dropdown menu showing "No sensor assigned" and a "+ Register new" link. At the bottom is a large yellow "Save" button.

Edit player — the Threshold Adjustment control.

9. Fitting the Sensor

A sensor only reports accurate impacts when it's worn correctly and snugly. *Give the fitting steps for your form factor — how it attaches, how tight is right, how to check placement, and what to avoid. A photo or two helps here.*

Fit matters

A loose or misplaced sensor can miss impacts or report them inaccurately — and orientation calibration assumes correct placement. Check fit at the start of every session.

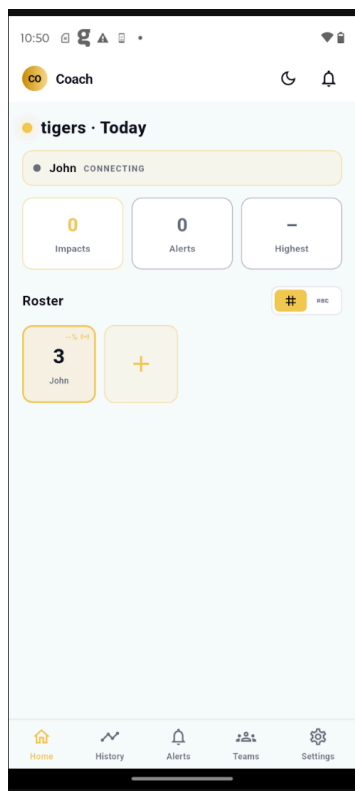
10. Live Monitoring During a Session

From the **Home** tab you see your whole team for the day — each player's connection status and the session totals (impacts, alerts, highest impact). Tap a player to open their live screen.

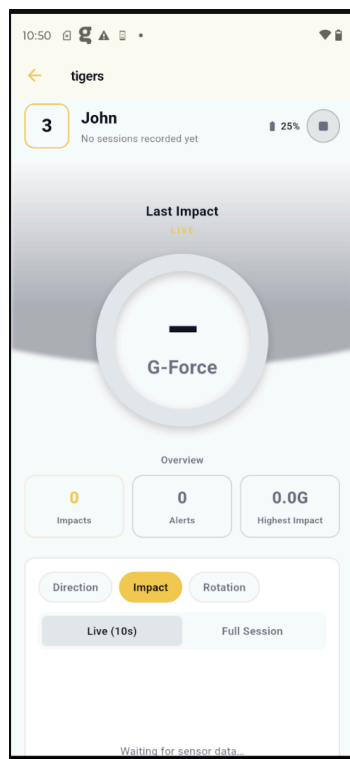
A player's live screen shows a LIVE indicator and sensor battery, plus:

- **G-Force overview** — impacts count, alerts count, and the highest impact of the session (in G).
- **Direction** — where the impact landed (front, left, right, or back).
- **Impact and rotation** — linear and rotational measures of the hit.
- A toggle between **Live (10s)** and **Full Session** views.

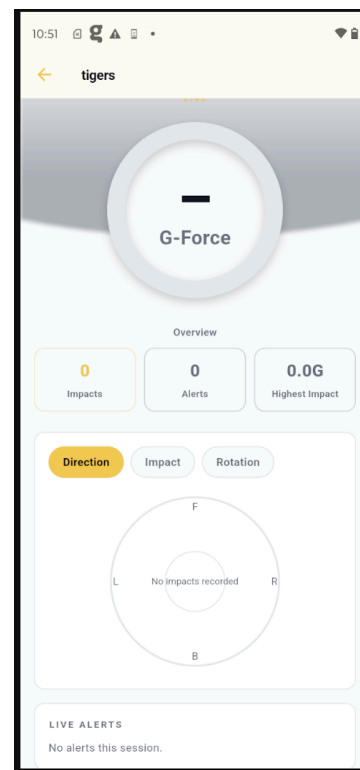
Before data arrives you'll see “*Waiting for sensor data...*” — confirm the sensor is on, worn, and in range.



Team home during a session.



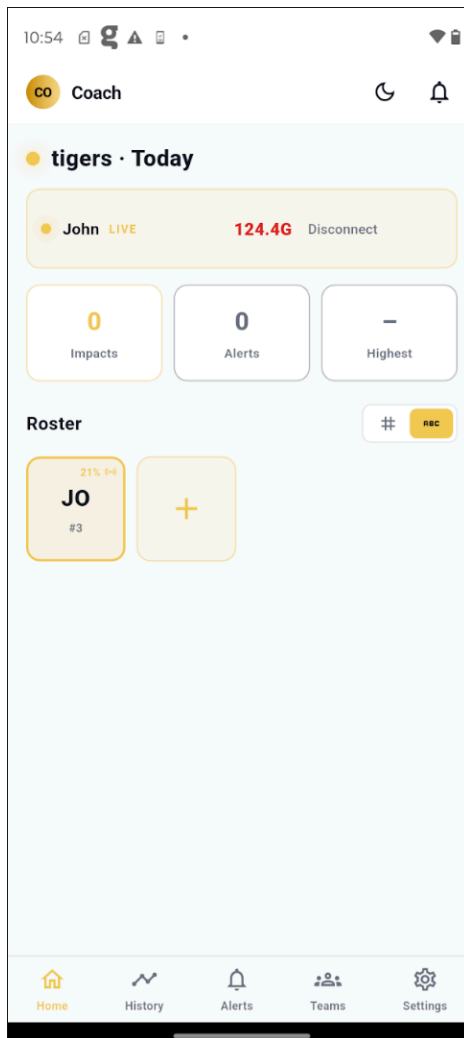
A player's live G-Force view.



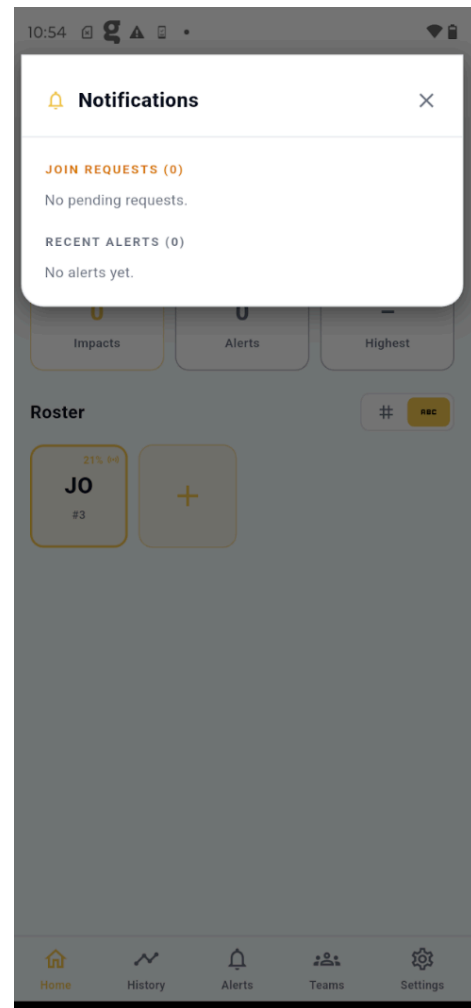
Impact direction (F / L / R / B).

11. Understanding Impact Alerts

An alert fires when an impact crosses a player's alert threshold, measured in **G**. Each player has a personalized threshold you can tune — see **Adjust a Player's Alert Threshold**. A live impact shows immediately on the **Home** tab against that player (for example, a high-G hit highlighted in red), and recent alerts and pending join requests appear in **Notifications**.



A live impact registering on the team home.



Notifications — join requests and recent alerts.

When an alert fires

Use the alert as a prompt to act, then rely on your training and protocol — not the number alone:

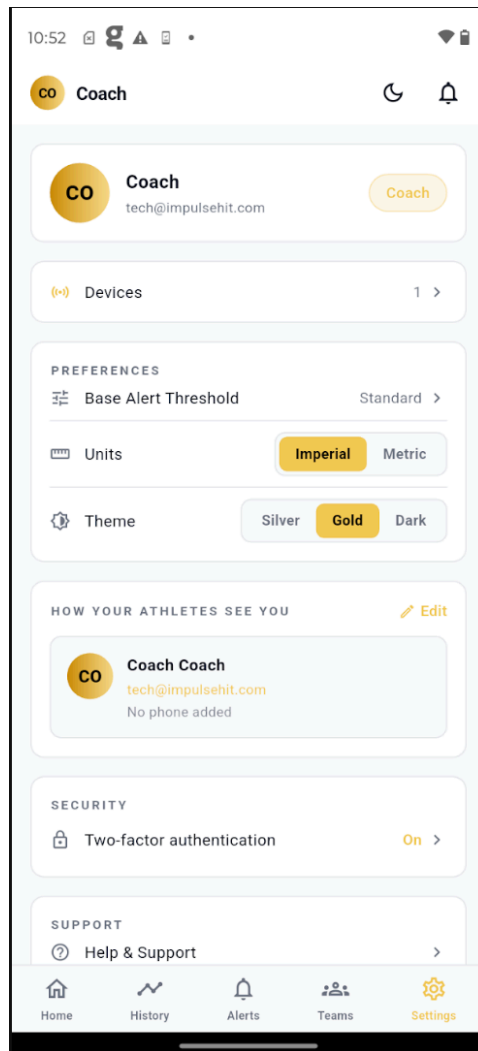
1. **Find the athlete's** alert names and get eyes on them.
2. **Remove them from play** if there's any sign of injury, or if your protocol calls for it after a hit at that level.
3. **Evaluate** using your standard sideline concussion assessment.
4. **Refer to a medical professional** when a head injury is suspected. Returning to play is a medical decision, not an app decision.

12. Reviewing History

The **History** tab collects daily session summaries once your players record sessions. *Describe what a summary shows — impacts, alerts, highest impact — and any option to open a session or export/share it with medical staff or parents.*

13. Settings Reference

- **Base Alert Threshold** — the team-wide starting sensitivity for alerts. Individual players are tuned in G from their profile (see **Adjust a Player's Alert Threshold**). *Confirm how the team-wide setting and per-player values relate.*
- **Units** — Imperial or Metric, used across player details and readings.
- **Theme** — Silver, Gold, or Dark.
- **How your athletes see you** — edit the coach profile (name, email, phone) players see.
- **Two-factor authentication** — recommended; turn on under Security.
- **Devices** — register and manage sensors.
- **Help & Support** — in-app support.



The Settings tab — preferences, security, and support.

14. Troubleshooting

The most common sideline issues and what to check first.

Problem	What to check
Sensor doesn't appear when scanning	Sensor is powered on and charged; it's close to the phone; Bluetooth is on; wait a moment for the scan; move away from other devices.
Sensor won't register	Re-scan; power-cycle the sensor; make sure it isn't already registered to another player.
"Waiting for sensor data..." never clears	Sensor is on, worn, and in range; it's registered and assigned to that player; reopen the player's live screen.
"Orientation not calibrated"	Calibrate the sensor's orientation before the session so direction is reported correctly.

Problem	What to check
Sensor keeps disconnecting	Athlete is within Bluetooth range; sensor battery isn't low; nothing large is blocking the signal; restart the app.
A player can't join with the code	Confirm the exact team code; regenerate with New Code and reshare; check they're entering it in their own Impulse app.
Battery drains quickly	Fully charge before sessions; keep firmware up to date; clean the charging contacts.
Still stuck?	Use Settings → Help & Support — <i>add your support email / phone / hours.</i>

15. Concussion Awareness

Impulse supports your judgment; it doesn't replace it. A few reminders that sit above anything the app reports:

- Any athlete with a suspected head injury should be removed from play and evaluated — with or without an alert.
- Symptoms can be delayed. An athlete who seems fine right after a hit still needs monitoring.
- Return-to-play decisions belong to qualified medical professionals following your protocol.

The rule that overrides everything

When in doubt, sit them out.

No monitoring device changes that.

16. Support & Contact

In the app: **Settings → Help & Support**. *Add how coaches reach the Impulse team — support email, phone, hours, and where to report a device problem.*