

# SciBaby

# User Manual

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## Important Notes

### ● **Tips for walking**

- Rather than swaying slowly, walk at **a commuting pace** (about 1.5–2 steps per second) with a very short stride—each step about half the length of the sole. Music in the app matches this tempo; **walk in time with it**.
- Keeping a steady pace works best. For the 5-minute segment, avoid stopping or changing direction as much as possible; we recommend **walking in a circle**.
- For safety, use a flat, tidy area you have cleared beforehand.
- The sensor and smartphone link via Bluetooth, so during babywearing walks **stay close enough** to your phone.

### ● Notes on using the app

- Run measurement mode while connected to Wi-Fi.
- During measurement, keep the app screen visible and do not launch other apps; doing so may cause measurement errors.
- You can leave notes after measurement or in record mode; **do not enter information that could identify you**, such as your address.
- To exit the app, long-press the “Cancel” button at the top right, send data, then close the app to avoid losing data.
- Depending on the app version, some screens and features may differ from this manual.

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## Measurement mode

There are two modes: Babywearing Walk and Trial.

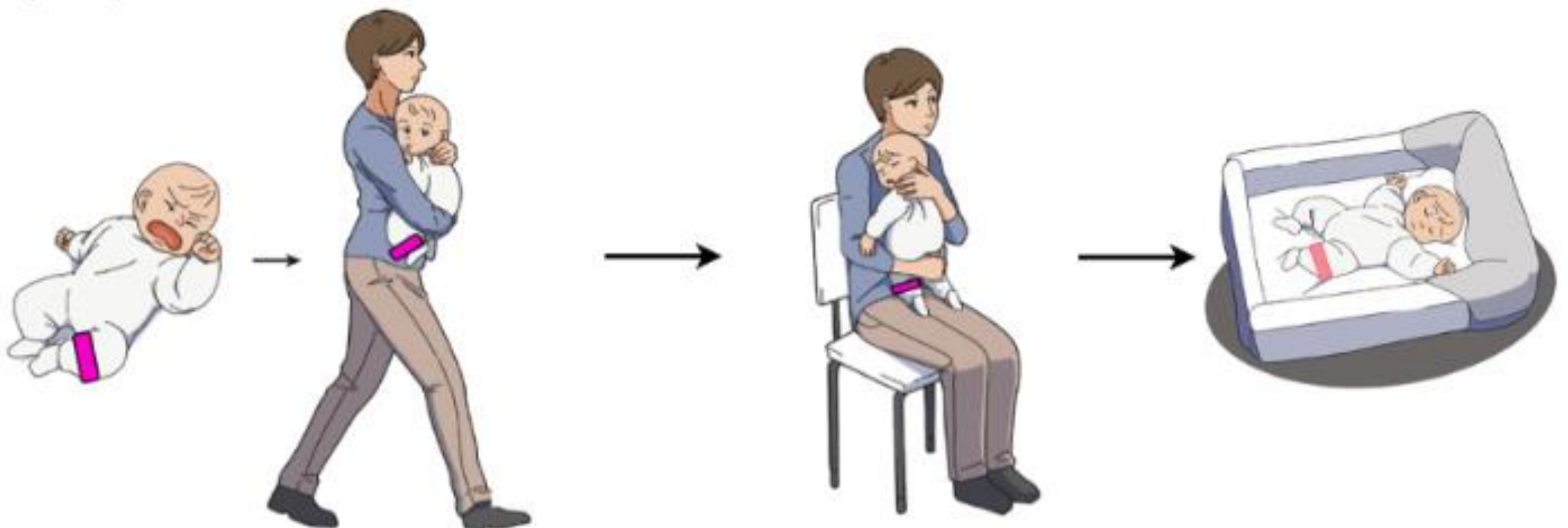
- **In Babywearing Walk mode**, a sensor measures your child's pulse wave and records it together with your child's state. After a 30-second wait, you walk while holding your child for 5 minutes, then sit on a chair for 8 minutes, then lay your child on the futon/bed.
- **Trial mode** follows the same flow as Babywearing Walk but records only your child's state without using a sensor.

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Carrying and walking  
for 5 minutes

Sit for 8 minutes

put to sleep

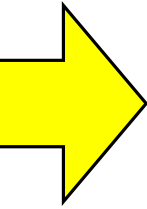
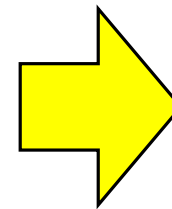
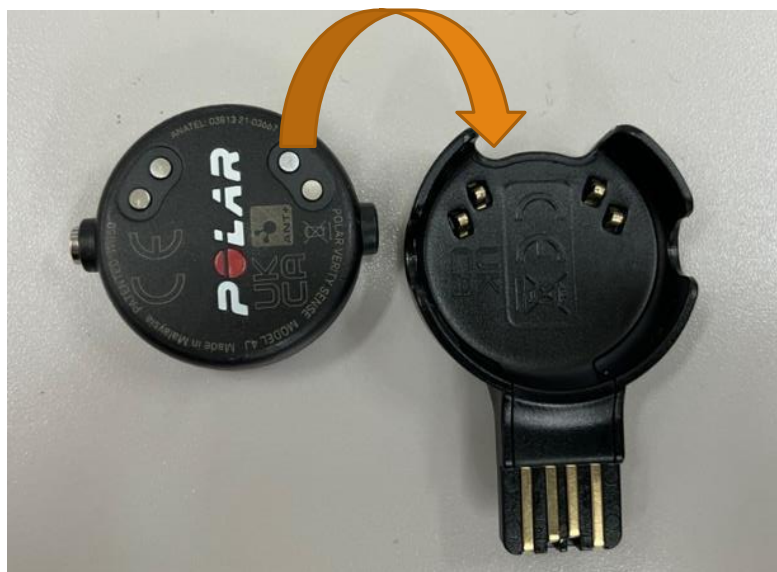


## Wearable sensor

- This app currently supports Polar Verity Sense only. Support for Polar Loop/360 is planned from July 2026.

# Initial setup ① (Preparing the Verity Sense sensor)

Align the four metal circles on the sensor with the circles on the adapter, attach the adapter, plug into a USB charger, and charge. A green light means charging is complete.



The original Polar Verity Sense strap is too long for infants. Please purchase an adult-sized watch strap as shown in the picture or shorten the original strap by 5-9 cm and sew it on. As your child grows, replace it with a longer strap.

A commercial wrist belt for Apple Watch



Polar Verity Sense, Original belt

The Velcro fastener removed, the strap cut by 5 cm, and the Velcro sewn back on

Snap the sensor into the case until it clicks. Through the window you should see the Polar logo.



Press the sensor button to turn it on. When ON, the green LED on the back blinks. Long-press again to turn OFF.

## Initial setup ② (Smartphone and app settings)

- Connect your smartphone to your home Wi-Fi and turn Bluetooth ON.

Please complete this step before continuing.

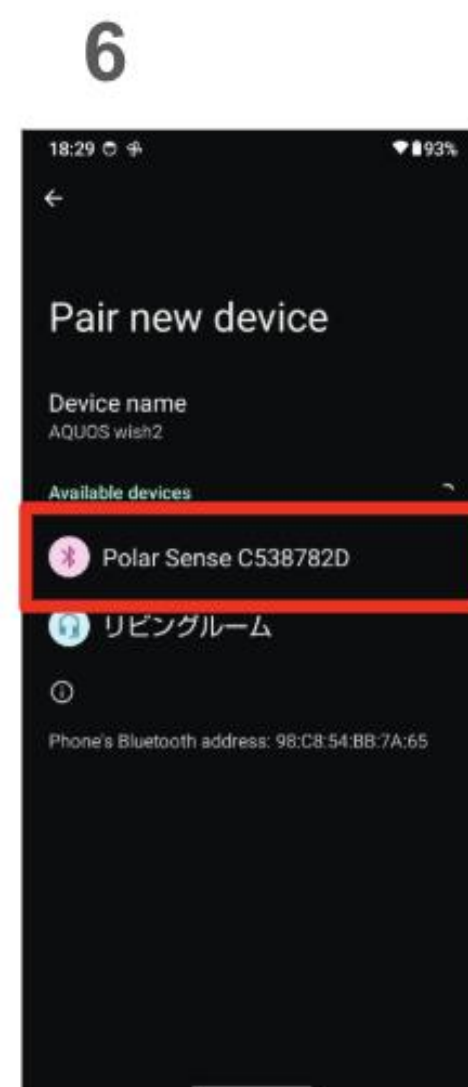
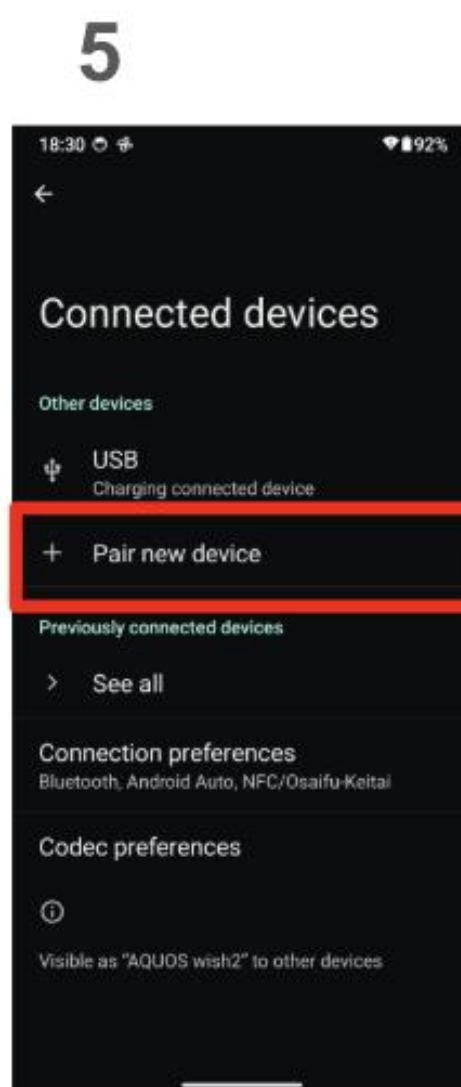
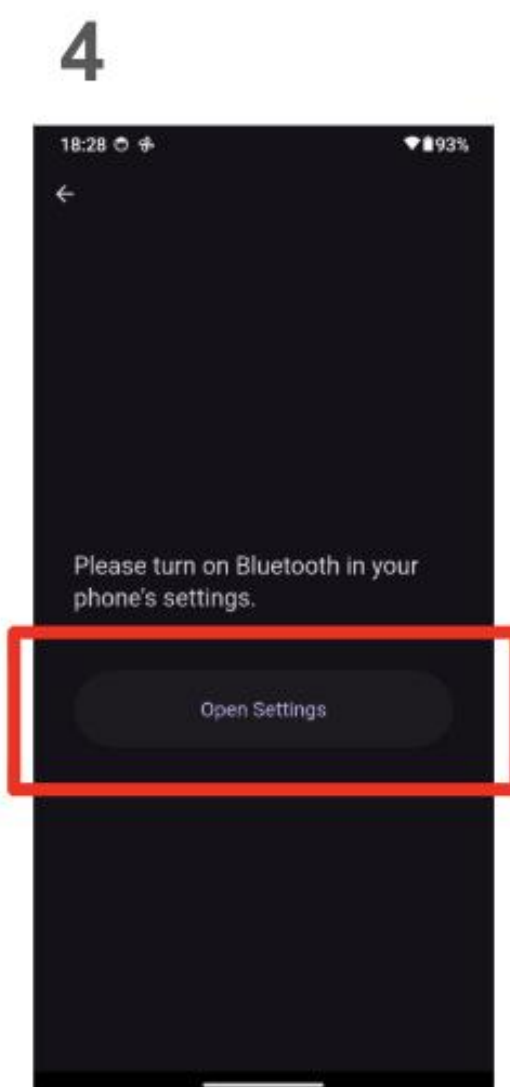
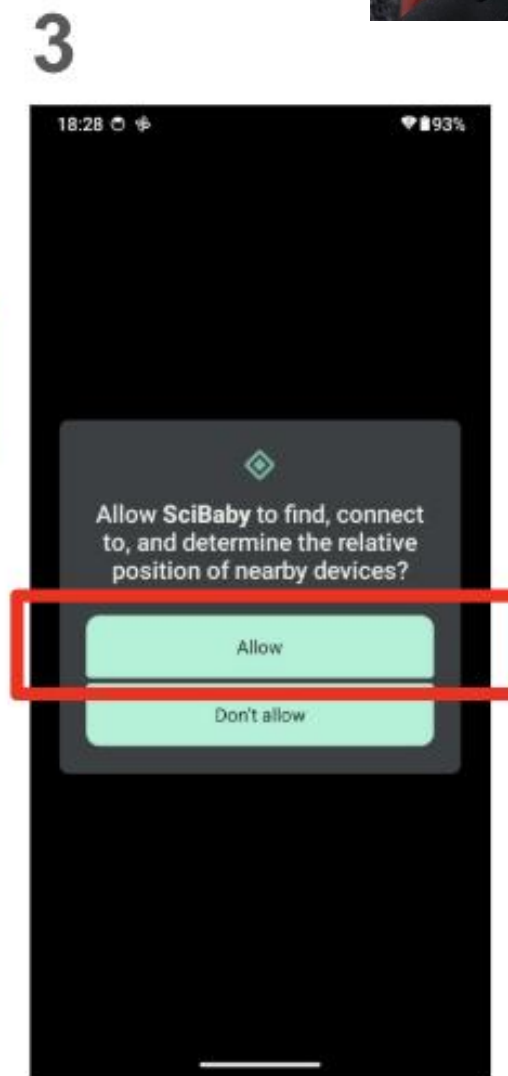
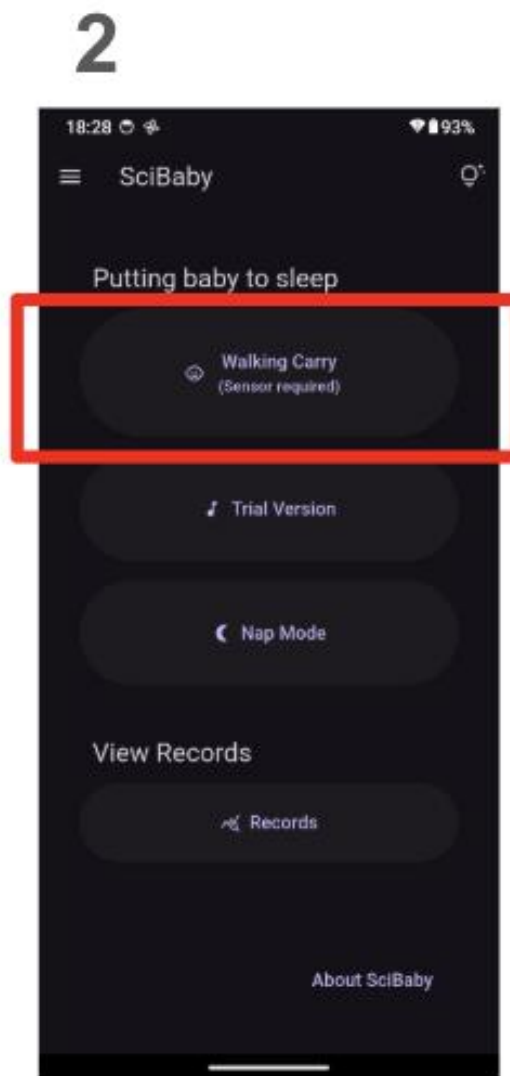
- Open the app and enter your child's nickname and date of birth.
- Read the important information carefully; check the box only if you agree, then tap OK to continue.
- Sign in with your Google account.

(Your Google account name, email address, and profile photo are shared with the app; however, other app users and developers cannot see this information.)

# Initial setup ③ (If you have a sensor)

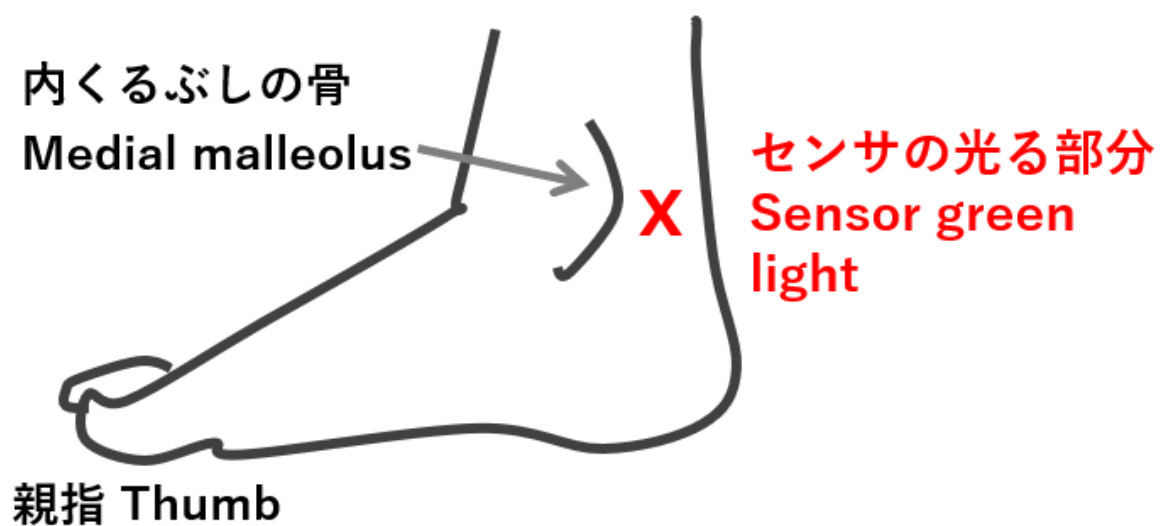
When your child is **calm**, select “Babywearing Walk” mode.  
Allow location access.

Turn the sensor ON (six green LEDs blink).  
Pair the sensor with your smartphone.



## 【How to wear the sensor】

After pairing, when you see the prompt to put Polar Verity Sense on your baby, attach the sensor to **the back of either inner ankle.**



Tighten the strap snugly enough that the sensor does not shift when the leg moves, but not too tight.

## 【Checking that the sensor is worn correctly】

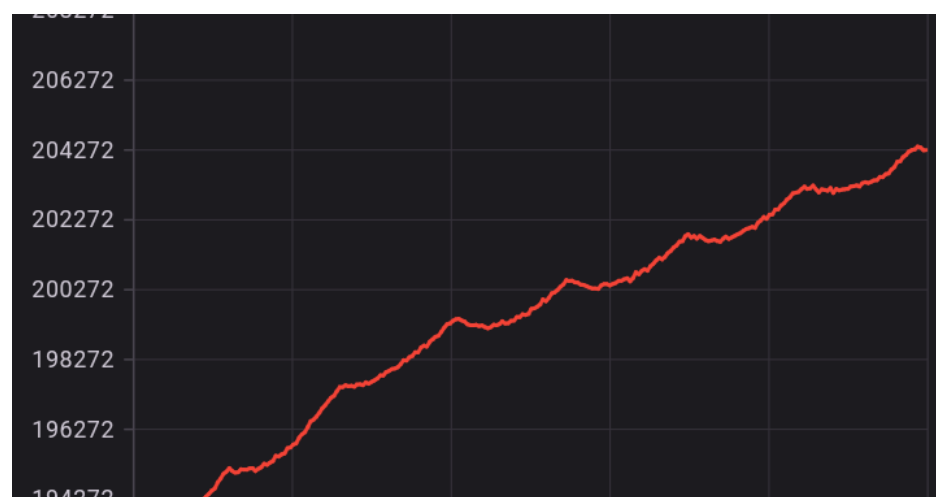
When you tap Start, you should see a red line on your child's pulse wave (PPG) graph. At first the line may move wildly; if your child stays still, a wave pattern will appear. Adjust the sensor position slightly up, down, left, and right so the red **wave is as tall as possible—at least one scale division high.**

※ If your child is moving, the wave will not stabilize; do this adjustment when calm beforehand and remember a good position. If your child cries mid-session, hold and calm them before continuing.

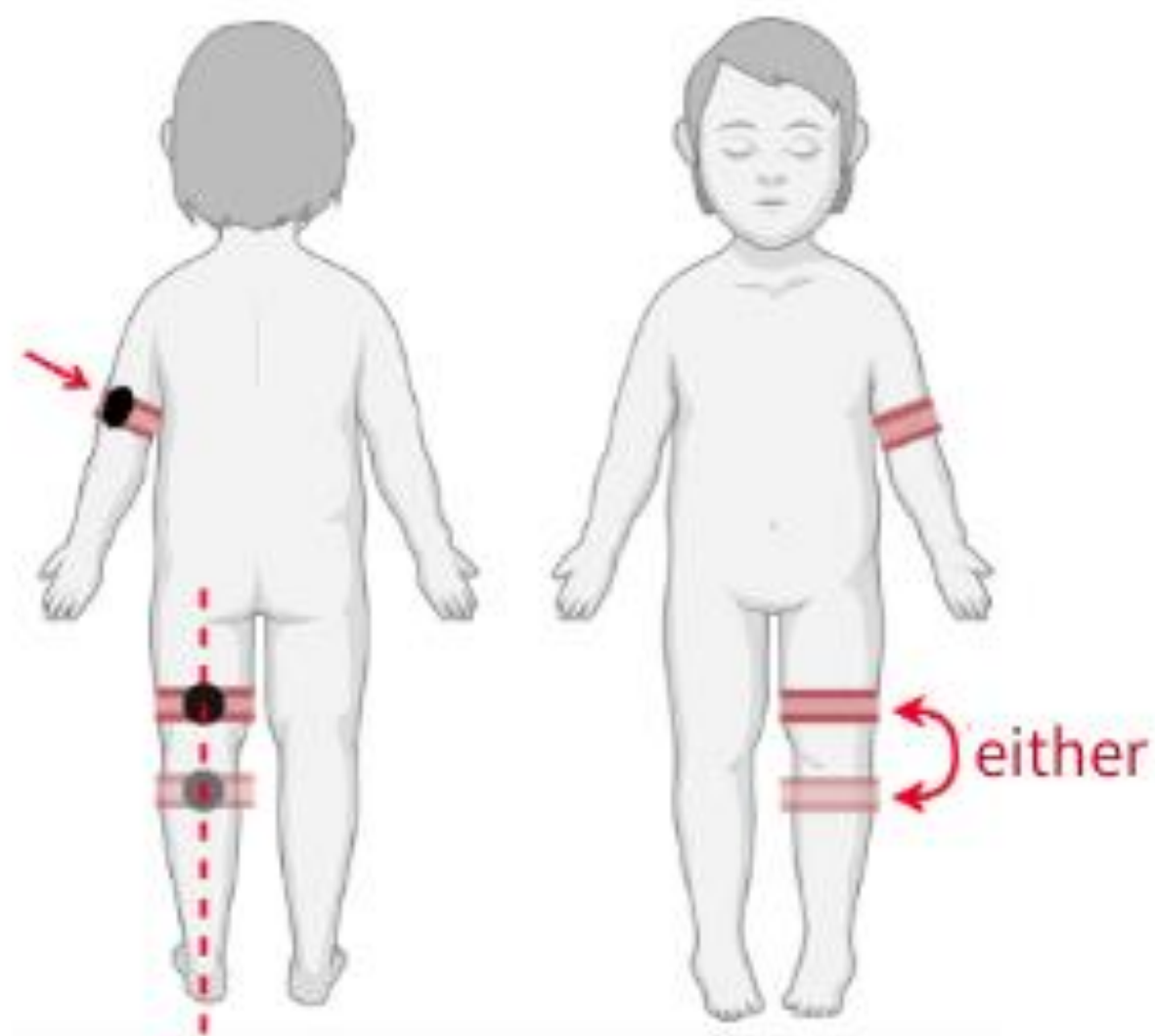
- Ideal wave height



- Needs a bit more adjustment



- If difficult, the upper outer arm just above the elbow, thigh, or **slightly above or below the center behind the knee** are also acceptable.



- During measurement, if the sensor shifts, tap "View PPG" to see the red wave graph again and readjust. Tap "View HR" to return to heart rate display.

# 【Measurement during babywearing walk】

If this is your first measurement, complete [the initial setup on pages 6–7](#) first.

## ▼ Flow: calming → putting to bed

1. Adjust sensor position, Start button
2. Enter your child's state at this time; if using a baby carrier, select "Yes"  
During this ~30 seconds you may hold or soothe your child, but do not start the babywearing walk yet
3. When the phone finishes counting down, begin the 5-minute babywearing walk at a steady rhythm
4. At the phone's signal, sit on a chair (if your child is still unsettled, you may extend the 5-minute walk)
5. At the phone's signal, lay your child on the futon/bed
6. Enter your child's state during the walk, when sitting, etc., then send data

## ▼ Notes for "Babywearing walk" mode

- Start when your child is **fussy** rather than perfectly calm—crying often responds better to calming from babywearing.
- We recommend walking indoors; clear the area beforehand to avoid tripping.
- Walk for 5 minutes at a steady pace without stopping as much as possible. Prefer walking in a circle rather than back-and-forth.
- Use a commuting-style cadence (step rate), not a swaying shuffle, with short strides and small steps—this is safer. Do not run or jump.
- If your child does not calm after 10 minutes of walking, check whether their condition differs from usual.

# Troubleshooting

## **Red line (PPG) does not stabilize and no wave is visible**

⇒ Tighten the belt so the sensor contacts the skin snugly, but not tighter than that—too tight can restrict blood flow or leave marks on the skin.

If your baby cries or moves a lot, hold and calm them first, then check the wave again.

## **The “Heart rate is low” message does not go away**

⇒ Check sensor placement and how the belt is fastened.

Measurement may still be possible while the message is shown.

## **“Data could not be sent” appears**

⇒ Restart your smartphone once, then launch SciBaby again.

Other frequently asked questions and answers are posted at the following URL:

<https://www.scibaby.org/cont4/main.html>

See the website for details.