



NEWS RELEASE

Valencell Launched the World's First Calibration-Free Blood Pressure Sensor System for Hearables and Wearables Powered by Ambiq Edge AI

2020-01-08

CALIBRATION-
FREE CUFF-LESS
BLOOD
PRESSURE
MONITORING

Blood pressure is a global health tragedy

The scale and scope of the problem are astounding:

- Over 1 billion people around the world have hypertension, according to the **World Health Organization**
- High blood pressure **kills tens of millions of people every year** and is a significant risk factor for stroke, heart failure, coronary artery disease, diabetes and kidney disease.
- High blood pressure costs over \$50 billion dollars every year **just in the US**. Some experts say that number could be **over \$1 trillion globally**.

And what makes high blood pressure so alarming is that it shows no physical symptoms until it's too late. That's why it's often called the "silent killer".

Two things worth pointing out about the data:

Fully one-third of Americans with high blood pressure don't even know it, and Half of US adults with hypertension DO NOT have it under control.

Compounding the problem is that no one really likes to use blood pressure cuffs:

- They're hard to use even for professionals
- They have a stigma attached to them
- And some (even FDA cleared cuffs) are wildly inaccurate

Valencell has spent 10 years developing a better way...

What if you could get an accurate BP reading with a device you already wear everyday – say while listening to music or watching your favorite show?

Valencell has developed the world's first calibration-free, cuff-less blood pressure monitoring technology for wearables. The technology works using PPG-only in the ear or at the finger – no ECG, no pulse transit time or other methodology. That means one sensor, one location on the body for simple integration and ease-of-use. The technology can be integrated into consumer earbuds, hearing aids, or finger based implementations on mobile devices, pulse ox clips or other similar devices.

The BP technology does NOT require calibration of any kind. Only 4 physical parameter inputs are required: height, weight, age, and gender. The technology enables in-session blood pressure measurements with the subject at rest (same as a BP cuff).

It's been tested with more than 15,000 data sets in more than 5,000 subjects around the world, and separately it has been validated in a clinical study to demonstrate it meets the ISO 81060-2:2018 standard. The results of that study are available here: **[Validation data for Valencell calibration-free blood pressure technology](#)**

The logo consists of a solid black rectangle with the words "VALENCCELL", "BLOOD", "PRESSURE", "EVALUATION", and "KITS" stacked vertically in white, uppercase, sans-serif font.

When you are ready to evaluate Valencell's blood pressure technology, please reach out to us at **info@valencell.com** to set up a discussion on your project.

Valencell's blood pressure evaluation kits include the following:

- A wired earbud with Valencell's biometric sensor system embedded
- Valencell BP development board
- Valencell's BP evaluation software for PC's
- Product documentation and Valencell engineering support

Interested in Valencell's blood pressure evaluation kit? Email us at info@valencell.com for details on how to order.

Source: <https://valencell.com/bloodpressure/>