Fitbit might be working on blood pressure tech, but its future is murky

Fitbit recently filed a patent application (pdf) for a force-sensitive display that would enable blood pressure readings on wearables. But even if patents *did* guarantee success — which they don't — the past few months make it hard to be confident in the future of Fitbit smartwatches.

First things first, you shouldn't read too hard into any patent filing. While it can give you a sense of what a company's working on, it's a legal tool for companies to effectively call dibs on a particular innovation. In the claims section of this filing (via *Wareable*), Fitbit outlines a force-sensitive screen combined with a photoplethysmography (PPG) sensor that, when pressed, can estimate your blood pressure.

What's neat about this concept is that it's essentially riffing on the traditional blood pressure cuff. Those work by cutting off blood flow in an artery. That pressure is then slowly relieved, which helps doctors figure out when blood flow starts up again (systolic reading) and when your heart relaxes again (diastolic reading). High numbers can be a sign your heart is working too hard to pump blood through your body.

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It’s not particularly surprising that blood pressure would be on Fitbit’s radar. It’s far from the first wearable to include this feature. Samsung’s had it for quite some time, though it uses a different mechanism that requires periodic calibration to a traditional cuff and is unavailable in the US for regulatory reasons. There’s also the Omron Heart Guide — an FDA-cleared smartwatch where the strap doubles as an inflatable cuff.

However, there’s new momentum for cuffless, noninvasive blood pressure wearables that use PPG sensors. Valencell, which develops biometric sensor tech, showed up at CES 2023 with a cuffless and calibration-less fingertip blood pressure monitor. Last year, Movano Health — which also showed up at CES with a smart ring — announced it completed functional testing for a radio frequency-enabled chip that could potentially measure both blood pressure and blood glucose in wearables.

Fitbit’s patent is cool, but its last few months have been lackluster. Its latest smartwatches, the Sense 2 and Versa 4, took a back seat to Google’s Pixel Watch. Plus, features available on previous iterations of the watches — like third-party apps and Google Assistant — vanished. Google also rebranded the company as “Fitbit by Google” and recently announced that in a few years, Fitbit users will have to log in using their Google accounts. Just this week, Fitbit experienced several server outages that left users frustrated and angry. Altogether, it doesn’t paint a pretty picture.

That’s why it’s hard to look at this kind of patent filing as an exciting development. If granted, it’s more likely to appear in a Pixel Watch than any Fitbit by Google product. And that’s if this feature even sees the light of day any time soon. While technology moves fast, health tech sure as hell doesn’t. Wearable tech companies usually veer toward “wellness” features because they don’t require regulatory oversight from the FDA. Blood pressure, however, would likely

necessitate the FDA’s involvement.

At best, this filing is just further evidence that noninvasive blood pressure tech *is* something that wearable companies deeply care about. But when and in what form is impossible to predict. It’s also a reminder that while dreaming up life-changing health tech is easy, it’s *much* harder to make it a reality. By the time we see widespread wearable blood pressure tech, Fitbit might already be a distant memory.

https://www.theverge.com/2023/2/10/23594352/fitbit-google-blood-pressure-patent-wearables