

## BUSINESS

# Nonin founder continues search for medical devices that 'improve lives'

By **Todd Nelson** Special to the Star Tribune | DECEMBER 13, 2020 — 4:15PM

Nonin Medical founder Phil Isaacson is focusing on finding new ways to improve people's lives even as strong global demand continues for a medical device he invented 25 years ago — the fingertip pulse oximeter.

Pulse oximeters — which measure blood oxygen levels — from Nonin and other manufacturers quickly became must-haves after doctors learned that lower oxygen saturation could indicate that a person has COVID-19.

Isaacson, chief technology officer and executive chairman of the 200-person company, said Nonin scrambled to meet soaring demand as the coronavirus pandemic exploded. Nonin, declared an essential business to continue making pulse oximeters, worked with government officials in several countries to keep core component manufacturers producing during shutdowns. It expanded supply-chain partnerships and hired a second shift at its Plymouth headquarters.

Isaacson also is eager to discuss Nonin's new device: the CO-Pilot, the first wireless handheld device that tracks multiple vital signs. The CO-Pilot launched in July after getting Food and Drug Administration clearance. It measures a patient's blood oxygen and other parameters after cardiac arrest, traumatic injury, carbon monoxide or smoke inhalation. An additional sensor measures cerebral and tissue oximetry. Nonin's CO-Pilot and fingertip pulse oximeters won a spot this month on Inc.'s 2020 Best in Business list, recognizing "the most inspiring and innovative companies of the year."

A physicist, Isaacson and three engineers founded Nonin in 1986 to develop measuring devices that are, as the company's name suggests, noninvasive. Nonin introduced the fingertip pulse oximeter in 1995. This year it has shipped the devices to hospital and clinics throughout the United States and to 140 countries. Consumers also are adding pulse oximeters to their home medical kits during the pandemic. Isaacson has his eye on other innovations, saying Nonin is prototyping products related to hydration. "There are some things I'm not even going to talk about now."

**Q:** Where is demand today for Nonin's fingertip pulse oximeters?

**A:** It's still high, it's definitely high, but we don't have quite as many panic buyers. We weren't able to make as many pulse oximeters as people wanted to buy from us. We had to allocate them to more critical locations. Existing customers took priority over somebody we'd never heard from before.



Nonin Medical founder Phil Isaacson invented the fingertip pulse oximeter.

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Q: How has consumer buying affected demand?

A: COVID-19 has gotten many more people aware of the value of pulse oximetry. Far more doctors have recognized that pulse oximeters are something people can use in the home. You don't need special training. You put it on the finger, it automatically turns on and three heartbeats later you've got a reading. Take it off and it shows that reading for 10 seconds and then shuts down. One of our strengths is to make unique physiological measurements very simple and robust. Another key is we give a reading that people can trust.

Q: What's next for you and Nonin?

A: I've got ideas and things I'd like to do. There's no limit to the types of physiological measurements that can be made. I always ask the question, so what? I always want to find ones that can be truly useful enough that we can do in large volumes. I really want to get things out that improve the quality of people's lives. That's really the goal here.

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