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Disposable stethoscope emerges from Wichita State's COVID relief efforts

By WSU Strategic Communications



The Single Patient Stethoscope™ from Ad Astra Medical Devices, LLC, boasts a sturdy, lightweight design engineered for maximum performance in today's demanding medical environments.

- Ad Astra Medical Devices is a startup company with its origins in Wichita State's efforts to produce PPE in the early days of the pandemic.
- The disposable stethoscope originally made by Wichita State was so popular with nurses and doctors that engineers continued to refine the design.
- The Single Patient Stethoscope™ gives medical professionals the acoustic quality found in traditional stethoscopes.

A Wichita State University-based program aimed at aiding frontline workers in the fight against COVID-19 has resulted in the formation of a new Wichita startup company and a premium disposable stethoscope.

The Single Patient Stethoscope™ from Ad Astra Medical Devices, LLC, boasts a sturdy, lightweight design engineered for maximum performance in today's demanding medical environments. Marketed as the Ad

Astra MD Gen2, the stethoscope provides high acoustic quality at a budget that allows for single-patient use.

The origins of the Ad Astra MD Gen2 disposable stethoscope lie within Wichita State's National Institute for Aviation Research (NIAR).

Early during the pandemic, [researchers at NIAR helped the medical community](#) by participating in a PPE-making coalition alongside Airbus Americas and other aviation manufacturers. As part of these efforts, engineers from NIAR and Airbus Americas used their expertise in additive manufacturing to produce and deliver more than 2,000 disposable stethoscopes to the medical community.

Disposable stethoscopes are not new, but over the years, medical personnel have learned to expect poor acoustics and flimsy materials that are difficult to use. The coalition resulted in the development of a premium disposable stethoscope designed for real-world applications with quality just like what a medical professional would expect from their own stethoscope.

The positive feedback received from the medical community about the quality of the stethoscopes encouraged the NIAR and Airbus Americas engineers to continue focusing on the need for a premium disposable stethoscope. The engineers ultimately created a brand-new disposable stethoscope, and Wichita State's tech transfer office filed several patent applications.

"NIAR has a history of supporting the aviation industry," says John Tomblin, Executive Director of NIAR. "We are proud to use our unique skills and expertise to help transform other industries, including health care and medical technologies."

Local entrepreneurs subsequently formed Ad Astra Medical Devices as a spinoff to commercialize Wichita State's disposable stethoscope technology. Headquartered in Wichita, the founding team is passionate about the impact this technology could have in supporting community health. The Single Patient Stethoscope™ is the first of many medical devices Ad Astra MD plans to bring to market.

"The Ad Astra MD team is humbled for the opportunity to stop the spread of infectious diseases through the delivery of the Gen2," said Dr. Michael A. Hale, Ad Astra Medical Devices' Chief Medical Officer. "The Single Patient Stethoscope™ has the potential to stop the spread of not just COVID-19, but also tuberculosis, C. diff, and MRSA."

To learn more about the AD Astra MD Gen 2 Single Patient Stethoscoped™, visit adastramd.com.