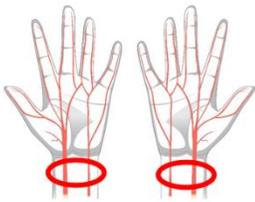


The Science behind using Wrist for Fever Checks

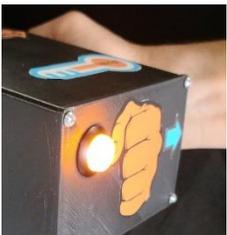
Hands-On Research along with Studies from Health Science Organizations Point to the Wrist as being the Best Option



Historically infrared thermometers have been designed to measure temperature from the forehead. Accurate thermal scans can potentially be taken any place on the human body where arterial blood flow is present. Areas such as the wrist and forehead are best for correlating with mean body temperature, which is used to measure a fever.



Forehead measurements can be inaccurate due to perspiration, hair, makeup, hats, and acclimation to a hot or cold environment. Wrist measurements can be inaccurate due to clothing, jewelry, and acclimation to a hot or cold environment but is less likely to be affected by these types of thermal interferences than the forehead.



For wrist measurements, individuals can easily manipulate their arm/hand and scan themselves. This can be accomplished with the forehead, but it is more difficult to teach proper technique and is more challenging to accommodate for people with extreme heights. Measuring the wrist also minimizes potential contamination between occupants by not requiring mouth and nose to be in proximity of the measuring device. The top of the fist is another potential area for measure since it is also easy for unattended testing. During our research, we found large discrepancies in intraday fist measurements depending on use of hands and the environment versus simultaneous forehead and wrist measurements. We also found that excessive hair could cause false low measurements. Based on our research, the wrist is much more in synch with the forehead which ultimately convinced us to focus on the wrist versus the fist as a measurement alternative. We currently provide measurement options for both the wrist (IntelliBOX™) and forehead (IntelliSHIELD™).

Below is a link that explains a study that supports using the wrist and forehead for determining mean body temperature.

<https://www.medrxiv.org/content/10.1101/2020.03.02.20030148v1>

The conclusions from this study is below:



“Wrist measurement is more stable than forehead measurement under different circumstance. Both measurements have great fever screening abilities for indoor patients.”

Provided by: <https://medrxiv.org>