NEW RESEARCH FROM EXERGEN CORPORATION MAKES COVID-19 FEVER DETECTION MORE ACCURATE

Studies show temperature-taking in the morning only is not sufficient to screen for COVID-19 – morning temperature readings may miss 50% of fevers

WATERTOWN, MA, October 27, 2020 – With many adults and children back at work and school in the midst of the coronavirus pandemic, screening for fever, a primary symptom of COVID-19, has never been more important. Health officials, school administrators, and employers are directing people to check for fever before leaving home in the morning. Exergen Corporation, makers of the #1 thermometer sold nationwide, says morning fever screenings are not sufficient and that taking temperatures both in the evening before dinner and in the morning provides a more reliable detection of fever. The company has launched a campaign to inform people that morning-only temperature readings, which could miss 50% of fevers, may be misleadingly low, based on the body’s long recognized circadian rhythms.

“Science proves that you will detect fevers in the evening that were not detected in the morning. Since temperature-taking is now part of our daily routine, it’s important to understand this basic concept and its implications for keeping us safe from COVID-19,” said Francesco Pompei, Ph.D., CEO of Exergen Corporation. “Families need to get into the habit of twice daily temperature-taking with an accurate thermometer, whose accuracy is backed by more than 80 peer-reviewed published clinical studies, as we enter into cold and flu season and a new, deadly phase of the coronavirus pandemic. We remind families that without such studies by medical professionals, there is no assurance of accuracy on children and adults in all settings.”

The company has released an educational video to communicate why taking your temperature twice daily should be the new normal, just like wearing a mask and practicing social distancing. The company has also developed educational materials, which can be found, along with more than 80 peer-reviewed clinical studies that support Exergen’s accuracy, at www.exergen.com.

A number of recent studies affirm that body temperature varies during different times of the day and night, weekly, and seasonally. The studies include one of the largest-scale analyses of
circadian cycles of human body temperature that shows predictable temperature variation. The study published in *Chronobiology International, The Journal of Biological and Medical Rhythm Research*, shows that the average human body temperature actually varies up to one degree, based on the time of day. In the study, 93,225 peoples' temperatures were tracked daily, weekly, and throughout the four seasons for a full year using a temporal artery thermometer. Researchers found that body temperatures follow a circadian rhythm, lowest between the hours of 6-8AM and highest between 6-8PM.

A second study, published in the *Western Journal of Emergency Medicine*, shows that fever incidence is lower at morning triages than at evening triages. The study analyzed 93,225 triage temperatures from a Boston emergency department (ED) (2009-2012) and 264,617 triage temperature measurements from the National Hospital Ambulatory Medical Care Survey (NHAMCS, 2002-2010), making this the largest study of body temperature since the mid-1800s. Boston data were investigated exploratorily, while NHAMCS was used to corroborate Boston findings and check whether they were generalized. NHAMCS results are nationally representative of the US Emergency Departments. The analyses focused on adults.

A recent article by Reuters in *The New York Times* referenced a third study, publication pending, that suggests we might be missing infectious disease by taking temperatures in the morning, when fevers are lowest. According to the abstract, fever range temperatures were about half as common in the morning than at night. The study looked at 295,406 US emergency department visits, including nationally representative results. Patients were less likely to have detectable fevers during mornings, with especially large morning-evening differences during influenza outbreaks (national RR=0.56, 95%CI=0.47-0.66). This suggests morning screenings could miss otherwise-detectable cases. Twice-daily screenings could be a simple solution. However, similar COVID-19 research is needed.

**ABOUT EXERGEN CORPORATION**
Exergen manufactures and markets two series of the TemporalScanner thermometer: a professional version for hospitals and clinics, and a consumer version sold in major retailers nationwide. More than two billion temperatures are taken each year with TemporalScanners. Used in thousands of hospitals and clinics across the country as well as in millions of homes, TemporalScanners are the #1 preference of pediatricians, #1 preference of nurses and #1 selling retail thermometer. The Exergen TemporalScanner’s accuracy is supported by more than 80 peer-reviewed published
studies covering all ages from preterm infants to geriatrics and all care areas from hospitals to homes. For additional information, visit www.exergen.com.