

Research into breathing and movement sensors.

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<u>Sudden infant death syndrome (SIDS)</u> is a source of concern for many parents. Since the early 2000s, there has been a sharp drop in the number of deaths from over a thousand to hundreds a year in Canada. This decrease is attributed to the fact that parents are applying the preventive recommendations including having their child sleep on his or her back in a cool place (around 19 degrees Celsius) without objects (bumper pads, blankets, comforters, etc.) in their sleeping environment, since all of these factors have been linked to the risks of suffocation, choking and sudden death.

In recent years, technology has been responding to parents' concerns about SIDS. These include under-mattress monitors that detect and monitor a baby's breathing and movements. For example, after 20 seconds without respiratory movement, the system alerts the parent with a warning sound, so that the parent hears or wakes up and can intervene with the infant.

Despite the appeal of such a device, it unfortunately fails to live up to its promise. **No** scientific study has demonstrated its effectiveness in preventing sudden infant death syndrome.

And what do the studies say about the effects on parents?

A number of studies have examined parents' feelings and behavior in relation to this type of device. Here are a few observations that demonstrate the diversity of points of view:

- One study gathered the perceptions of over 500 mothers regarding this type of product.
 In general, mothers reported peace of mind when using these breathing and movement sensors, as well as less stress and better sleep.
- Other studies report that the use of these sensors is not contraindicated despite the lack
 of studies, but that they may provide a false sense of security to the parent, or
 diminish preventive strategies for safe infant sleep. What's more, some parents
 report anxiety over the apprehension of an alert signal from the device.

Technology hasn't said its last word!

It's a story to be followed in terms of both device effectiveness and biomedical innovation. Just recently, the "Night Knight", an intelligent teddy bear capable of monitoring the sleep of children aged 4 to 10, saw the light of day in northern Alberta. Equipped with motion sensors, the device alerts parents via a mobile app to abnormal behavior during a child's sleep. The students behind this invention want to reassure parents, while recognizing the importance of sleep for a child's mental and physical health.

It is up to the family to decide whether or not to use them. Irrespective of the use of breathing and movement sensors, it is advised to follow safety and prevention recommendations, such as putting your baby to sleep on his or her back, on a mattress of the correct hardness, and keeping the sleeping surface free of objects that could increase the risk of suffocation.

Inspiration and scientific sources:

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