

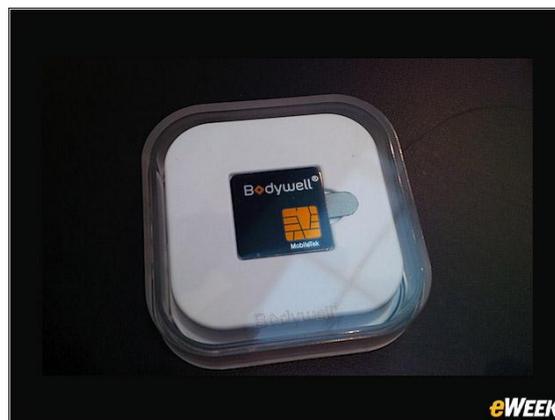
Bodywell Chip Cuts Smartphone Radiation Up to 80 Percent: Researchers

By [Michelle Maisto](#) | Posted 2013-02-12

EZ [Technologies](#), at a Feb. 11 event in New York City that it called the first scientific symposium to present new research on the specific absorption rate (SAR) of radiation from [mobile devices](#), [introduced the Bodywell Chip](#). The chip retails for \$29.99, is roughly the size of a very large SIM card and has a peel-away sticky back. When stuck to a smartphone, tablet or cordless phone, it reduces the amount of radiation a user is exposed to, said EZ Technologies. Company officials said the chip counters SAR radiation—similar to the effect of noise-cancelling headphones that "reduce noise with a form of counter-noise"—and without affecting cell service. During the symposium, two scientists described how radiation waves behave, what SAR is, how humans absorb cell phone radiation and how lab tests showed the Bodywell chip significantly reduces the amount of radiation to which device users are exposed. The consensus from the group, which included a neurologist, was that the evidence regarding the safety of cell phone radiation is inconclusive, and without a definitive "no," users need to keep questioning and behave preventatively. When tested on an iPad with a cellular connection, the chip reduced SAR by 34.8 percent, which means a lot for children, said Nachaat Mazeh, research associate at Beaumont Health System in Michigan. In the field of aerospace, he said, a 5 percent safety-factor increase would be considered very good. But a more than 50 percent reduction, he said, "is certainly an important safety factor for everyone, but especially our children."

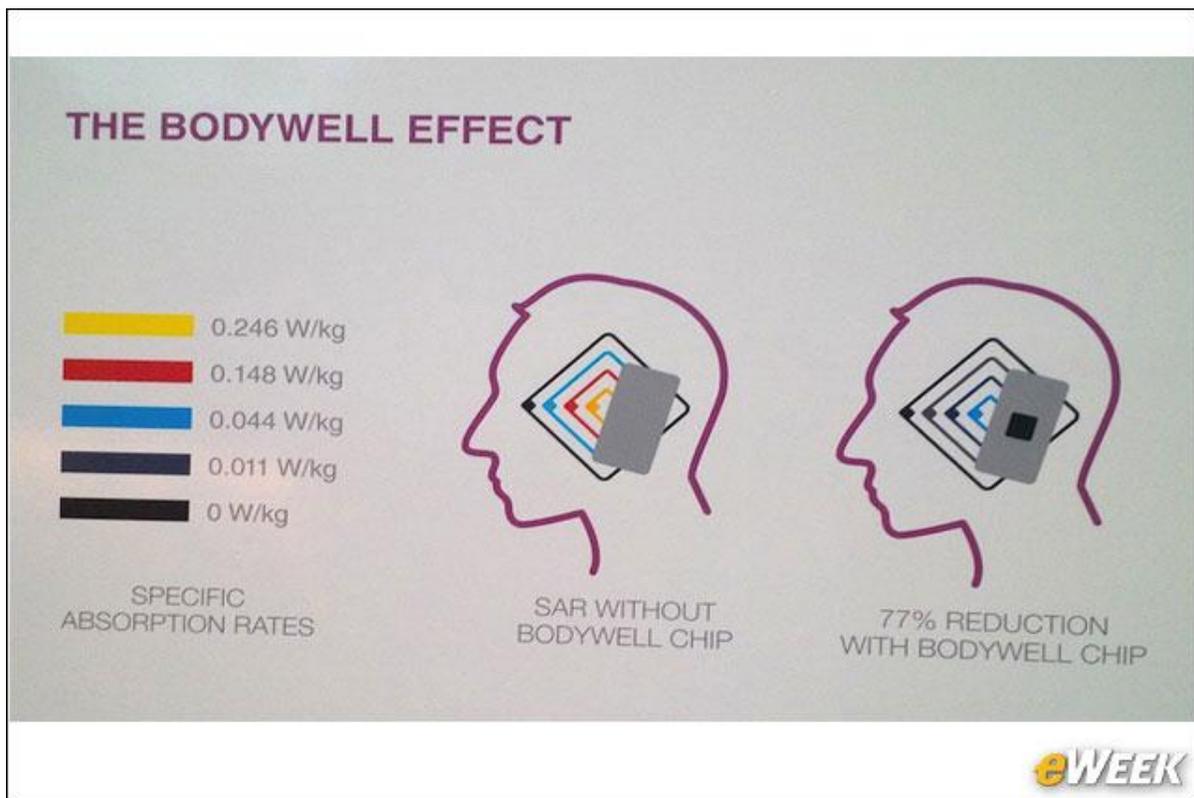
Bodywell Chip

The Bodywell Chip is designed to dramatically reduce a cell phone's specific absorption rate (SAR), which is the amount of cell phone radiation that's absorbed by a user. The chip has a sticky back and can be stuck to the backside of a phone or inside its back cover.



Bodywell Effect

EZ Technologies officials said that testing shows the Bodywell Chip to reduce SAR by an average of 77 percent. While cell phone radiation hasn't conclusively been proven to be dangerous, there's concern about the long-term effects of exposure. In 2012, Israel's parliament approved a bill requiring cell phones to carry a label: "Warning—the Health Ministry cautions that heavy use and carrying the device next to the body may increase the risk of cancer, especially among children."



EZ Technologies

EZ Technologies CEO Haim Einhorn cited tobacco as an example of a product that was considered "cool and harmless." Today, he said, "we have the technology to know what it does to our bodies." In case cell phone radiation follows suit, Haim said, the Bodywell Chip is a preventive measure. He called it a "seat belt for cell phones," adding that users are "better safe than sorry."



Moshe Einat

Researcher Moshe Einat explained how wavelengths work and that when a user puts a phone to his head, "radiation covers the head." He also noted that information naturally travels through the body via currents, and the fear is that electric currents from cell phones could disrupt natural body currents.



FCC

The Federal Communications Commission has different SAR levels that it considers safe for consumers and occupational exposure. For consumers, the limit is 1.6 watts per kilogram.

How much is allowed ?

| | |
|--|---|
| Occupational exposure (1) Limits for Occupational/Controlled exposure: 0.4 W/kg as averaged over the whole-body and spatial peak SAR not exceeding 8 W/kg as averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube). Exceptions are the hands, wrists, feet and ankles where the spatial peak SAR shall not exceed 20 W/kg, as averaged over an 10 grams of tissue (defined as a | Population exposure (2) Limits for General Population/Uncontrolled exposure: <u>0.08 W/kg</u> as averaged over the whole-body and spatial peak SAR not exceeding <u>1.6 W/kg</u> as averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube). Exceptions are the hands, wrists, feet and ankles where the spatial peak SAR shall not exceed 4 W/kg, as averaged over any 10 grams of tissue |
|--|---|

Average SAR: 0.08W/kg
Spatial peak SAR: 1.6 W/kg

U.S. SAR standards for cell phones

The FCC limits for cell phone radiation exposure (47CFR 2.1093(d)), based on IEEE recommendations, permit the following SAR levels for whole-body exposure and for partial-body or localized exposure (FCC 1997, 1999):

11



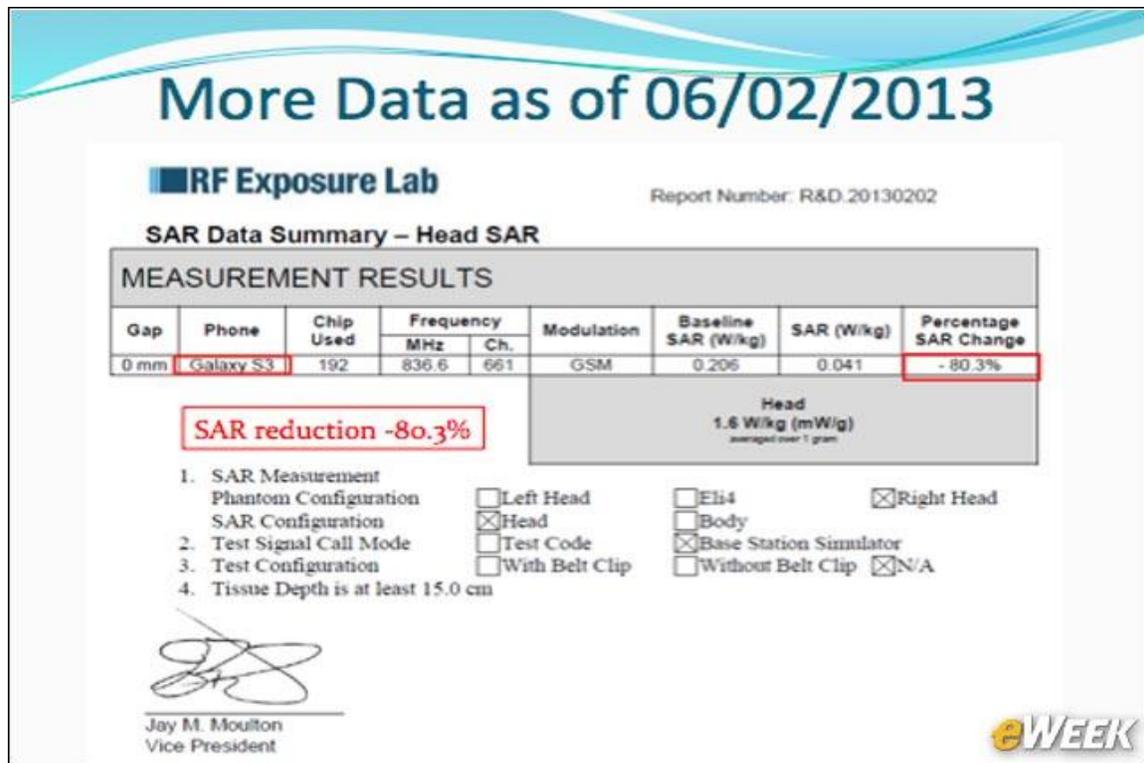
Nachaat Mazeh

Research Associate Nachaat Mazeh said that testing found that the chip doesn't impede reception, but does reduce exposure. Any reduction in exposure, he said, "is just a safety factor."



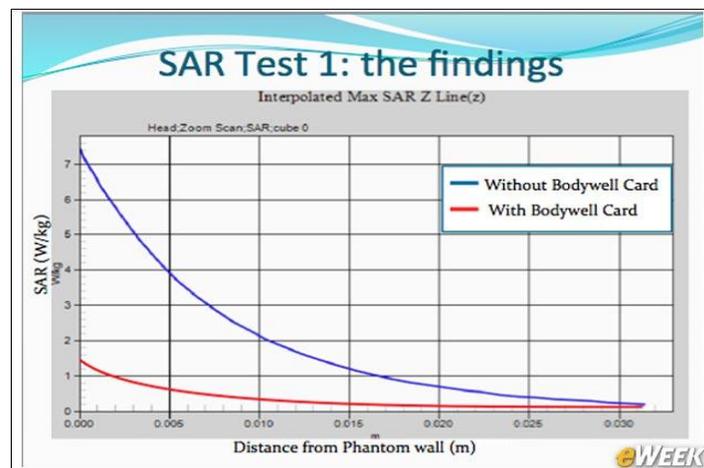
Samsung Galaxy S III

When the Bodywell Chip was tested with the Samsung Galaxy S III, said Maze, SAR was reduced 80.3 percent. The testing was done in an FCC-certified lab in San Diego.



SAR Test

"We don't have concrete evidence," said neurologist Nancy Mueller, because studies can't be conducted with humans; that would be illegal and immoral. Instead, she said, we need to err on the side of caution. "I think it's not just your brain that's affected, but your entire nervous system," she said.



Bodywell Chip

All the panelists have been using the chip on their phones. "This is not an ad," said Mazeh, pulling off the cover on his phone to reveal a chip. "I've been using this for years." As far as EZ Technologies can tell, the chips don't expire. Chips being used for several years have been shown to block the same amount of radiation.



Two Sizes

The Bodywell Chips have been created in two sizes. Without offering more details, Einhorn said there is a difference between the two, but only the smaller one is now sold commercially. Amazon is now selling it for \$29.99, and soon a few retailers will, as well.



By [Michelle Maisto](#) | Posted 2013-02-11



The \$30 stick-on Bodywell Chip can reduce the radiation that smartphone users absorb by up to 80 percent, EZ Technologies says.

NEW YORK — Cell phone radiation falls into a "better safe than sorry" zone, doctors and scientists argued during a Feb. 11 symposium here hosted by EZ Technologies, which is now selling the Bodywell Chip—a \$30, roughly inch-square chip the thickness of a SIM card that consumers can peel the back off of and stick to their mobile phones.

Cellular phones emit various amounts of radiation, and bodies can safely absorb limited amounts. Each cell phone (listed somewhere in their fine print) has a specific absorption rate (SAR)—loosely, the amount of radiation that it presents to a user's head. The Federal Communications Commission (FCC) oversees SAR levels and has designated 1.6 watts per kilogram as the highest safe level for public exposure.

The Bodywell Chip, in FCC-approved labs, has been shown to reduce SAR levels by up to 80 percent, without reducing the phone's reception, said Dr. Nahaat Mazeh, a research associate at Beaumont Health System in Michigan, who presented the results of his experiments, as did Moshe Einat, a researcher and lecturer at the Department of Electrical & Electronic Engineering at the Ariel University of Samaria, in Israel.

In testing using a Samsung Galaxy S III on the right side of the head, said Mazeh, the SAR level was reduced by 80.3 percent; used with an Apple iPhone 5 on the left side of the head, it was reduced by 68.2 percent; and when used with an iPad—which EZ Technologies CEO Haim Einhorn was quick to point out is a common entertainment device for small children—the SAR level was reduced by nearly 35 percent.

"Children today are growing up in a world that only knows the iPhone, and it is critical that we have an understanding of how the pervasive use of the iPhone and all other cell phones will affect our children, Einhorn said in Feb. 7 statement announcing the symposium. "Cell phone radiation is real, and preparation is the best prevention."

Opening his remarks at the event, Einhorn quoted Albert Einstein—"A new type of thinking is essential if mankind is to survive and move toward higher levels"—and offered Aspartame and tobacco as examples of products that were once considered harmless but have since been proven otherwise.

"We use our cell phones without thinking of anything more than convenience," he said. "The effects of the waves generated by phones have been studied again and again ... and notable doctors have publicly performed experiments showing that radio waves from phones can adversely affect human tissues, and particularly the brain."