Study: Laughter Can Burn Calories

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ATHENS, Greece — Dieters looking for another edge might want to consider exercising their sense of humor — scientists have found that a good laugh is a calorie burner not to be ignored.

It may not be as good for reducing the waistline as going to the gym or resisting that ice-cream sundae, but American researchers have found that 10-15 minutes of genuine giggling can burn off the number of calories found in a medium square of chocolate.

The findings on the weight-loss possibilities of the uniquely human experience of laughter were presented at the close of the annual **European Congress on Obesity** on Saturday.

Researchers at **Vanderbilt University**) in Nashville, Tennessee, recruited 45 pairs of friends, shut them in a room decorated like a cheap hotel — scientifically known as a metabolic chamber — played them comedy clips on a TV screen and measured how many calories they burned when they laughed.

The researchers separately tested seven pairs of male friends, 17 pairs of female friends and 21 mixed couples.

"We didn't tell them that the goal of the study was to measure laughter, because then they might have forced it and forced laughter is regulated by a totally different part of the brain. We wanted it to be genuine laughter," said the lead researcher, **Maciej Buchowski**, director of bionutrition at Vanderbilt.

The volunteers were told the researchers were testing emotional reactions to various video clips.

The room was specially designed so the scientists could measure how much oxygen the volunteers inhaled and how much carbon dioxide they exhaled — the gold standard for measuring energy burning.

Noting differences in the oxygen and carbon dioxide patterns before and during laughter allowed the scientists to calculate whether laughter used more energy and how big the difference was.

Heart rate monitors were also fitted on the volunteers as a back-up measure of changes, as heart rate tends to respond to changes more quickly than breathing does. Microphones were fitted to record the laughter.

The volunteers were told not to talk or move and to just kick back in the reclining chairs and watch what was on the screen.

"First it was half an hour of something boring — an English landscape," Buchowski said. "During that time we measured the baseline, the resting metabolic rate."

Five different comedy clips, starting with a take-out from the Cosby show — minus the canned laughter _were then shown for 10 minutes each, interspersed with five minute intervals of sheep wandering around fields in England.

The heart rate, laughter and breathing information was then lined up in the special laughter lab and the tapes were analyzed second-by-second.

"They burned 20 percent more calories when laughing, compared to not laughing," Buchowski said.

"Then we calculated what would happen if somebody laughed for 10 or 15 minutes a day and we found that it was up to 50 calories, depending on your body size and the intensity of the laughter."

That means that if you laugh for 10-15 minutes a day, you'd burn enough calories to lose two kilograms (4.4 pounds) in a year, Buchowski said.

Physiology experts say it's not exactly an effective way to shed extra weight — but the idea is worth a laugh or two.