

# Stopping type 1 diabetes from birth



BBC

Experts believe they may have found a way to prevent high risk babies from developing type 1 diabetes. The idea is to train infants' immune systems by giving them powdered insulin to offer life-long protection, BBC reported. Insulin is the hormone that controls blood sugar, which goes awry in diabetes. Pregnant women visiting maternity clinics in Berkshire, Buckinghamshire, Milton Keynes and Oxfordshire are being asked to sign up to the trial. Parents that take part will be asked to give their children insulin powder daily from the age of about six months until they are three years old. They will have visits from the research team to monitor the child's

health. Half of the study participants will be given the real insulin while half will get a placebo powder containing no drug. Neither the researchers nor participants will know which they received until after the trial so as not to bias the results. **Type 1 diabetes** It is thought about one in every 100 babies has genes that put them at increased risk of developing type 1, insulin-dependent diabetes. Experts say a heel prick blood test that is routinely done on newborns to spot other conditions could also detect these genes. The researchers, from Oxford

University, want to screen 30,000 babies in this way to find eligible ones for their trial. It is hoped that spoon-feeding insulin powder can train the immune system to tolerate the body's own insulin to prevent the onset of type 1 diabetes. Currently, there is no way to prevent type 1 diabetes. Others have been testing whether giving a different drug, called metformin, in childhood might hold off diabetes. Type 1 diabetes is a lifelong condition where the pancreas does not produce insulin, causing blood glucose levels to become too high. This can cause serious long-term health problems such as blindness, cardiovascular disease and stroke.

Chief investigator of the Oxford trial Dr. Matthew Snape said: "Preventing children and their families from having to live with diabetes and its threat of complications such as blindness, kidney or heart disease would be fantastic." The work is being funded by the National Institute for Health Research, the type 1 diabetes charity JDRF, Diabetes UK and the Wellcome Trust, as well as the Leona M and Harry B Helmsley Charitable Trust. Dr. Elizabeth Robertson, director of research at Diabetes UK, said: "This is a huge endeavor, so we would encourage women living in the South East who think they might be eligible to find out more — research like this can't happen without the incredible people who take part."

## More evidence that supplements won't help your heart

There's another study suggesting that the vitamin and mineral supplements bought by millions of Americans do nothing to stave off heart disease. This time, the finding stems from an analysis of 18 studies conducted between 1970 and 2016. Each one looked at how vitamins and mineral supplements — which are not reviewed by the US Food and Drug Administration for either safety or effectiveness — affect heart health, upi.com reported.

After tracking more than two million participants for an average of 12 years, the studies came up with a clear conclusion: They don't. Still, "people tend to prefer a quick and easy solution, such as taking a pill, rather than the more effortful method to prevent cardiovascular disease", said study author Dr. Joonseok Kim. "Simply put, multivitamins and mineral supplements do not improve cardiovascular health outcomes, so [they] should not be taken for that purpose," added Kim. He's an assistant professor of medicine at the University of Alabama at Birmingham's division of cardiovascular disease.



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The Council for Responsible Nutrition, a trade association representing supplement makers, stressed that the products are meant as nutritional aids only, not as a means of preventing or treating illness. "CRN stresses that multivitamins fill nutrient gaps in our less-than-perfect diets and support a host of other physiological functions," Senior Vice President Duffy MacKay said in a statement. "They are not intended to serve as magic bullets for the prevention of serious diseases." In the study, Kim and his colleagues reported that after accounting for both smoking histories and physical activity habits, they saw no evidence that taking a multivitamin or mineral supplements lowers the risk for dying from heart disease, experiencing a stroke, or dying from a stroke.

The lack of any apparent heart health benefit was seen across the board, regardless of age or gender. Dr. Gregg Fonarow helps direct the UCLA Preventative Cardiology Program in Los Angeles. He noted that upwards of 100 million American men and women take vitamins or supplements "frequently based on the misguided belief that doing so can improve their heart and vascular health." The largely unregulated supplement industry is doing a booming business, with a projected value of \$278 billion by 2024, Kim's team noted. "This, despite the fact that prior studies have "consistently demonstrated no benefit" from supplements when it comes to heart health, Fonarow said. In fact, both Kim and Fonarow believe supplements may actually do harm.



anh-usa.org 2

How? According to Kim, placing one's faith in supplements "could divert the public from following measures that are proven to be beneficial for cardiovascular health". By way of example, he pointed out that while 50 percent of the American public consumes dietary supplements, just 13 percent meet federal recommendations for fruit and vegetable consumption. "We know that fruit and vegetable intake improves cardiovascular health," Kim said. Fonarow concurred, adding, "The false belief that these supplements are providing some level of protection distracts from adopting approaches that actually lower cardiovascular risk.

"The evidence-based, guideline-recommended approaches to reduce the risk of fatal and non-fatal cardiovascular disease include maintaining a healthy blood pressure, cholesterol levels, body weight, not smoking, and engaging in daily physical activity. "There are also widely available and inexpensive once daily cardiovascular protective medications such as statins that, in eligible individuals, can safely and effectively lower risk." Neither the American Heart Association nor the American College of Cardiology recommends taking multivitamins or mineral supplements to lower heart disease risk, Fonarow noted. As for Kim, he hopes the new study "dampens the hype of multivitamins and mineral supplements, and encourages people to focus on the real issues like diet, exercise, [and] smoking cessation." The research was published in the July issue of the journal *Circulation*

The US Department of Health and Human Services (HHS) is pushing back against a New York Times report that the Trump administration tried to block an effort from the United Nations to promote breastfeeding. The Times reported that the US wanted to remove language in a resolution that called on governments worldwide to protect, promote, and support breastfeeding, cbsnews.com reported. US officials also reportedly threatened Ecuador, which had planned to introduce the resolution, with punitive trade measures, though their efforts were largely unsuccessful as the final resolution maintained most of the original wording, according to The New York Times. The stance has puzzled many health experts, as decades of research has shown that breast milk is the healthiest option for babies overall. In a statement to CBS News, HHS said, "Women should have the choice and access to alternatives for the health of their babies." Global health experts stress

that breast milk is especially important for infants in poor countries, where clean water to mix with powdered formula may be hard to come by. "There's no arguing that

What's the right age for babies to start eating solid foods? Research shows that infants who have been breastfed have lower rates of asthma, obesity, diabetes, SIDS, and ear and respiratory infections. Mothers who breastfeed also see health benefits themselves, including a decreased risk of postpartum hemorrhage, earlier return to pre-pregnancy weight, and a decreased risk of ovarian

and breast cancer. According to a study from the World Health Organization published in The Lancet, breastfeeding could prevent 823,000 infant deaths and

try to meet the composition and performance of breast milk. It's never going to meet it exactly because it doesn't have the antibodies, but manufacturers have to meet nutrient requirements set by the FDA and they all have similar compositions of protein, carbohydrates, vitamins, mineral, water and fat." And while guidance from pediatricians remains that babies should be exclusively breastfed until six months, a new study published in JAMA Pediatrics found that feeding solid food to babies at an earlier age may help them sleep better. That study looked at about 1,300 infants starting at three months and divided them into two groups: One that was exclusively breastfed until six months and one where the babies started solid foods as early as 16 weeks. The latter group slept on average about two hours longer per week and woke up about two times fewer per week. Not surprisingly, quality of life was also improved for moms. "It may be beneficial for sleep all around," Narula said.

## Why breastfeeding is 'gold standard' for babies' health



beautifulbreastfeeding.com

breastfeeding is considered the gold standard of nutrition," CBS News medical contributor Dr. Tara Narula said. This based on the fact that it has special nutrients, she explains. "It has hormones, antibodies, enzymes, live cells and so that is why the American Academy of Pediatrics and others recommend that infants be exclusively breastfed until

20,000 maternal deaths every year, worldwide. Narula noted that of course there are women who cannot breastfeed or choose not to, and that is a safe option in the United States. "In that case, formula is a safe and healthy alternative option," she said. "It's been around since the 1920s. It's evolved over time to

explained. "This study, along with our previous research revealing that only a small number of the bacteria in our armpits are actually responsible for bad smells, could result in the development of more targeted products that aim to inhibit the transport protein and block the production of body odor," Thomas said. The new study was published online in the journal

## This protein makes armpits reek, and scientists want to stop it

Afraid to raise your hand because of embarrassing body odor? Here's some good news for you: Scientists said they're one step closer to conquering smelly armpits. Researchers in England say they've identified a protein that enables bacteria in your armpits to take up odorous compounds in sweat and make it stink, upi.com reported. According to the investigators, it may be possible to develop new deodorants that target this protein, known as a "transport" protein.

Study coauthor Gavin Thomas, of the University of York's department of biology, pointed out that underarm skin provides a hospitable home for bacteria. "Through the secretions of various glands that open onto the skin or into hair follicles, this environment is nutrient-rich and hosts its own microbial community," he said in a university news release. Modern deodorants work by inhibiting or killing many of those bacteria in order to prevent odor, Thomas

explained. "This study, along with our previous research revealing that only a small number of the bacteria in our armpits are actually responsible for bad smells, could result in the development of more targeted products that aim to inhibit the transport protein and block the production of body odor," Thomas said. The new study was published online in the journal