

Leading the News

Research suggests enteroviruses may trigger diabetes, especially in children.

[BBC News](#) (3/6, Wilkinson) reports that researchers in the UK are suggesting that "a common virus may be the trigger for the development of many cases of diabetes, particularly in children." In fact, "signs of enteroviruses were found in pancreatic tissue from" more than half "of children with type 1 diabetes, but in hardly any children without the disease." In addition, according to the paper published in *Diabetologia*, "40 percent of adults with type 2 diabetes had signs of the infection in insulin-producing cells." While it is generally accepted that genetics "play a fairly substantial role in a person's risk of developing diabetes," Glasgow pathologist Dr. Alan Foulis postulated that enteroviruses "would be present" in samples he spent 25 years collecting from "children across the UK who had died less than 12 months after being diagnosed with type 1 diabetes." But, "until recently, the technology was not sensitive enough to detect them."

Now, through various high-tech advances, scientists working on separate teams at the Peninsula Medical School, the University of Brighton, and Glasgow Royal Infirmary were able to act on Dr. Foulis' hunch, the UK's [Telegraph](#) (3/5, Alleyne) noted. One "team tested the pancreas" samples Dr. Foulis had retrieved from "72 young patients who had died" previously. They found, according to the UK's [Independent](#) (3/6), that in "60 percent of cases, the organs contained evidence of beta cell infection by enteroviruses," whereas "pancreases of 50 deceased children who had not suffered from diabetes showed virtually no sign of viral infection."

Investigators surmise that the "enteroviruses trigger the rogue immune response that leads to destruction of the insulin-producing cells of the pancreas," the UK's [Daily Mail](#) (3/5, Macrae) explains. "In those genetically vulnerable to diabetes, the bugs may tip their immune system over the edge." Moreover, the "role of infection could also explain cases in which one identical twin develops diabetes, but the other doesn't." Nonetheless, Professor Noel Morgan, of the Peninsula Medical School, said, "The next stages of research -- to identify which enteroviruses are involved, how the beta cells are changed by infection, and the ultimate goal to develop an effective vaccine -- will lead to findings which we hope will drastically reduce the number of people around the world who develop type 1 diabetes, and potentially type 2 diabetes, as well."

Yet, "it could be at least ten years before such a treatment is available, because of the complexities of developing vaccines," the UK's [Scotsman](#) (3/6, Moss) points out. Still, Dr. Foulis stated that the "idea of a vaccine and being able to prevent this disease would be" the culmination and zenith of his "life's work in research."

[New Scientist](#) (3/5, Biever), the [Belfast Telegraph](#) (3/6), the UK's [Herald](#) (3/6, Churchill), and the [Financial Times](#) (3/6,

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The advertisement features a dark blue background. At the top, the logo for CAN (Corporate Angel Network) is displayed in white, with an arrow pointing upwards and to the right. Below the logo, the text "CORPORATE ANGEL NETWORK" is written in a smaller, white, sans-serif font. The main body of the advertisement consists of white text that reads: "Donate an empty seat on your corporate aircraft to give a cancer patient a lift to life-saving cancer treatment at no cost or inconvenience to you." The words "life-saving cancer treatment" are highlighted in a yellow, serif font. Below this text, the phone number "(914) 328.1313" is written in a yellow, sans-serif font. At the bottom of the advertisement, there is a photograph of three people (two men and one woman) standing in front of an airplane. The website address "corpangelnetwork.org" is printed in white at the bottom right of the image.

Cookson) also covered the story.

From the American Academy of Physician Assistants

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Clinical Practice

Middle-aged men may be able to extend their lives by becoming more active, investigators say.

[BBC News](#) (3/6) reports, "Increasing activity levels in middle age can prolong life as much as giving up smoking," researchers in Sweden found after following "over 2,200 men from the age of 50." In fact, "those who increased activity levels from 50 to 60 ended up living as long as those who were already exercising regularly by middle age," a finding that underscores the adage that it is "never too late to start exercising."

Before drawing that conclusion, investigators had volunteers complete "a survey on leisure time physical activity," and categorized them "into low, medium, or high activity groups," the UK's [Telegraph](#) (3/5, Smith) added. According to the study published in the *BMJ*, participants "were re-examined at ages 60, 70, 77, and 82 years, and changes in physical activity were recorded." In addition, the team also examined "other information, such as body mass index, blood pressure, cholesterol levels, smoking status, and alcohol use."

By study end, the UK's [Guardian](#) (3/6, Campbell) reports that the researchers noted that "males in their middle years who do a lot of physical activity, equivalent to three hours a week of sport or heavy gardening, can outlive their sedentary peers by 2.3 years."

In addition, "men who did moderate exercise lived 1.1 years longer than men who reported the lowest levels of exercise," [HealthDay](#) (3/5, Reinberg) added. Yet, "whether women might reap the same benefits remains a bit unclear." Lead author Dr. Karl Michaëlsson, of Uppsala University, said that "if you are strict, our results cannot be extrapolated to women." Still, he "cannot see a biological reason why there should be gender differences in effect."

Taking a closer look at the study, [WebMD](#) (3/5, Hendrick) defined the different levels of activity the participants undertook. "At age 50, nearly half of the men claimed a high level of physical activity, that is, at least three hours of recreational sports or heavy gardening per week," while 36 "percent reported medium activity, amounting to walking and cycling," and "15 percent were categorized as sedentary." In summary, "increased physical activity prolongs life in middle-aged men after 'an induction period' of up to 10 years," the authors said.

Study indicates some studying to be dieticians may have bias against obesity.

Writing in the [Los Angeles Times](#) (3/5) *Booster Shots* blog, Jeannine Stein observed that, according to a study published in the March issue of the *Journal of the American Dietetic Association*, "some people studying to be dietitians may have preconceptions about obese men and women." For the study, researchers from Yale University "sent surveys to 182 undergraduate dietetics students from various schools across the country to ascertain their attitudes about the obese. Each

participant was randomly sent one of four hypothetical patient profiles: an obese man and woman, and a normal-weight man and woman, all generally healthy." The profiles were all identical, "except for gender and weight-related information such as body mass index (BMI), weight, and percentage of body fat."

The surveys revealed that "just two percent of those training to be dietitians have positive or neutral attitudes toward people who are obese, and the rest are moderately biased against their prospective patients," [HealthDay](#) (3/5, Colwell) added. The majority of the survey's participants "had pejorative views about the attractiveness, self-control, overeating, insecurity, and self-esteem of people who are obese," and "rated obese patients as being less likely than non-obese patients to comply with treatment recommendations." The findings reflect those from other studies that "have shown that many health professionals have negative perceptions about very overweight patients." They also "show a lack of appreciation for how difficult it is to lose weight and for the biological factors involved," the authors concluded.

Healthy diet in children may offset risk of gene linked to obesity, research suggests.

[WebMD](#) (3/5, DeNoon) reported that, according to a study published in the March 2009 issue of the online journal PloS One, "children born with a gene linked to obesity don't have to get fat," because "a healthy diet trumps the obesity gene's unhealthy effects." Building on previous research indicating that "people who inherit a variant version of the *FTO* gene tend to have to eat more to satisfy their appetites," researchers from the University of London examined "data collected during a long-term study of 2,275 children who were tested for the *FTO* gene," then determined "the energy density of their diets" at age 10. Next, the team "looked at how much fat mass the children had accumulated by the time they reached age 13." The investigators found that "children with the *FTO* variant aren't any more vulnerable than other kids to the fat-increasing effects of energy-dense, high-calorie foods." Still, the authors concluded that children "can offset the risk of having the obesity gene if their parents feed them fewer energy-dense foods."

Stress may play a key role in the development of type 2 diabetes in obese black women, study suggests.

[HealthDay](#) (3/5, Preidt) reported that, according to a study to be presented this week at a meeting of the American Psychosomatic Society, "stress may play a key role in the development of type 2 diabetes in obese black women." For the study, researchers from Duke University "included 62 healthy, non-diabetic black women who were asked to recall stressful life events. As they did," the team "measured the women's levels of blood sugar and epinephrine," and found that "women with high epinephrine levels (25 picograms or more per milliliter of blood) while recalling stressful events and with more belly fat (33 percent or more of total body fat) had significantly higher fasting glucose scores (about 100 milligrams per deciliter) than women with lower epinephrine levels and less belly fat (85 mg/dl)." In addition, "women with high epinephrine levels and more belly fat also had bigger increases in blood sugar levels during the stress test."

Research suggests large waistlines may be associated with decreased lung function.

[BBC News](#) (3/6) reports that researchers in France are saying that "'love handles' can limit the ability to take a deep breath," according to a study published in the American Journal of Respiratory and Critical Care Medicine in which 120,000 men and women participated. The "team set out to look if there was an association between lung function and metabolic syndrome," and discovered "a strong association between a large waist measurement" -- those more than 35 inches for women and 40 inches for men -- and "decreased lung function, regardless of overall body mass index." The group surmises that "abdominal obesity may affect breathing through restricting the diaphragm or chest wall," but "there could be other explanations." For instance, "fat tissue may increase inflammatory processes in the body which may in turn lead to respiratory problems."

strained marriage, data indicate.

[BBC News](#) (3/5) reported, "Women are more likely than men to suffer damage to their health from being in a strained marriage," according to a new study. For the research, investigators interviewed "276 couples who had been married for an average of 20 years," after which they rated the couples "for how depressed they appeared to be, based on their self-reported symptoms," and "carried out a battery of tests to assess whether or not the volunteers were showing signs of metabolic syndrome." They found that "women in strained marriages were more likely to be depressed and to have a greater number of symptoms of metabolic syndrome."

"The men were as likely as the women to become depressed with marital strain, but the link between negativity, depression, and metabolic syndrome only applied to women," according to [HealthDay](#) (3/5, Doheny). "The depression in women accounted for the metabolic syndrome." The researchers "can't say specifically how much risk of metabolic syndrome is attributed to the negativity." Prior "research has linked negativity in marriage with an increased risk of heart disease for both men and women."

Study suggests napping may increase mortality risk in older women.

[UPI](#) (3/6) reports, "Older women who reported taking daily naps had a significantly greater risk of dying," according to study published in the Journal of the American Geriatrics Society, in which investigators followed "8,101 Caucasian women age 69 and older...over a seven-year period." Researchers at the California Pacific Medical Center Research Institute found that "women who reported napping daily were 44 percent more likely to die from any cause, 58 percent more likely to die from cardiovascular causes, and 59 percent more likely to die from non-cardiovascular, non-cancer causes." Furthermore, those "who reported sleeping between" nine and "10 hours per 24-hour period...had a greater risk of mortality compared to those who slept between" eight and nine hours.

Healthcare workers' cell phones may contribute to incidence of hospital-acquired infections, research suggests.

[AFP](#) (3/6) reports, "Cell phones belonging to hospital staff were found to be tainted with bacteria -- including the drug-resistant MRSA [Methicillin-resistant *Staphylococcus aureus*] superbug -- and may be a source of hospital-acquired infections," researchers in Turkey found after testing "the phones and dominant hands of 200 doctors and nurses working in hospital operating rooms and intensive-care units." Specifically, 95 "percent of the mobile phones were contaminated with at least one type of bacteria, with the potential to cause illness ranging from minor skin irritations to deadly disease," while approximately "35 percent carried two types of bacteria, and more than 11 percent carried three or more different species of bugs."

The UK's [Telegraph](#) (3/5, Smith) pointed out that "computer keyboards and other equipment have previously been found to be contaminated with bacteria, including MRSA."

Regulatory News

FDA warns some drug patches may cause burns during MRI.

The [Wall Street Journal](#) (3/6, Dooren) reports that the "US Food and Drug Administration Thursday [warned](#) of the risk of skin burns in patients wearing transdermal drug patches who are undergoing MRI scans." The patches, which "are applied to the skin and can be used to deliver pain medications, hormones, and nicotine," are made with "aluminum or other metal in the backing of the patches which can overheat during an MRI scan and cause skin burns in the immediate area of the patch."

According to the [New York Times](#) (3/6, A18, Harris), the FDA said it "has received reports of as many as five patients wearing patches who experienced a skin burn similar to a bad sunburn during screening. ... Federal health officials are generally alerted to only a fraction of the injuries associated with drug and device use." The transdermal "patch alert is the latest in a string of safety warnings involving magnetic resonance imaging that have resulted from the unpredictable effects

of the strong magnets used in MRI devices." Currently, radiologists "warn patients with tattoos, implanted medical devices, and shrapnel that they could experience discomfort or injury when scanned."

Dr. Sandra Kweder, deputy director of the Office of New Drugs at FDA's Center for Drug Evaluation and Research, said that "there are a total of 60 medication patches on the market, and about 25 percent contain metal," [HealthDay](#) (3/5, Reinberg) reported.

The [AP](#) (3/6, Neergaard) notes, "As for patch makers, FDA is reviewing every product's label to be sure ones that are supposed to carry the safety warning do. Some may be missing because a patch was reformulated to add metal after its label was written; other times, FDA acknowledged it just didn't ensure the warning was present in the first place." The agency is also "considering having an MRI warning somehow be put on the individual patch, not just the box it comes in."

[UPI](#) (3/5), [WebMD](#) (3/5, Hitti), [Medscape](#) (3/5, Lowry), and [MedPage Today](#) (3/5, Gever) also covered the story.

Healthcare Technology

Physician contends electronic records "depersonalize medicine."

In an op-ed for the [New York Times](#) (3/6, A27), Anne Armstrong-Coben, MD, writes, "We have all heard about the wonderful ways in which electronic medical records are supposed to transform our broken healthcare system," and the "recently passed federal stimulus package provides doctors and hospitals with \$17 billion worth of incentive payments to switch to electronic records. The benefits may be real, but we should not sacrifice too much for them." The computer, she argues, "depersonalizes medicine. It ignores nuances that we do not measure but clearly influence care." Dr. Armstrong-Coben concludes that "before we embrace the inevitable, there should be more discussion and study of electronic records, or at a minimum acknowledgment of the downside." She suggests that electronic records should perhaps "be kept only on tablet computers, allowing the provider to write or draw, and to face the patient." Ultimately, "the personal relationships we build in primary care must remain a priority, because they are integral to improved health outcomes. Let us not forget this as we put keyboards and screens within the intimate walls of our medical homes."

Also in the News

Six largest baby-bottle manufacturers will stop selling bottles made with BPA in US.

The [Washington Post](#) (3/6, A6, Layton) reports that, in response to a letter from Connecticut Attorney General Richard Blumenthal, "the six largest manufacturers of baby bottles will stop selling bottles in the United States made with bisphenol A (BPA)." The chemical, which has been "in commercial use since the 1950s, is found in a wide variety of everyday items, including plastic beverage containers, eyeglasses, and compact discs." BPA "mimics the hormone estrogen and may disrupt the body's endocrine system." Some "public health advocates say it poses a particular danger to fetuses, infants, and children because BPA can interfere with cell function at a point when their bodies are still developing." In addition, "more than 130 studies have linked BPA to breast cancer, obesity, and other disorders."

According to Blumenthal, "Avent, Disney First Years, Gerber, Dr. Brown, Playtex, and Evenflow have agreed to the request" to "stop manufacturing baby bottles that contain" BPA, the [AP](#) (3/6) points out. The AP also notes that on Mar. 4, "lawmakers in Suffolk County, NY, became the first in the nation to vote on a ban on baby bottles and toddler sippy cups made with BPA."

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