

HealthNet News

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Linking Connecticut Patients and Families to Reliable Health Information

In this issue: **Electronic tattoos, workplace noise, family health histories, and more**

Flexible Electronic Tattoo to Measures Vital Signs.

Researchers at the University of Austin have created a biotechnology sensor using graphene which can be applied to the skin like a [temporary tattoo](#). Graphene is only one atom thick. It is mechanically resilient and highly conductive. These special properties allow the sensor to move with the skin like a tattoo, yet resist damage from stretching and compression. The sensor is applied by placing the temporary tattoo paper carrying the graphene onto the skin and adding water. This portable, minimalist sensor can measure electrical activity from the heart, brain, and muscles. It also measures skin temperatures and hydration levels. The EEG, EKG and EMG measurements taken with the graphene tattoo have been comparable in quality to data collected using conventional monitoring equipment.

How Loud is Your Workplace? There's an App to Measure That.

Are you worried that workplace noise is effecting your hearing? If you own an Apple iPhone, you can download a free app to measure workplace noise.

NIOSH (National Institute of Occupational Safety and Health) teamed up with EA LAB to create a professional quality [sound measurement app](#). NIOSH hopes workers worldwide will capture and share noise exposure data using their smartphones. Not only will this data be valuable to scientists and health and safety researchers, it will also help workers make informed decisions about potential workplace hazards to their hearing.

Battle Over Role of Drugs in Gout Treatment - Influence of Big Pharma?

[New recommendations](#) from the American College of Physicians (ACP) for the treatment of gout have angered many rheumatologists. ACP says there is no gold-standard evidence (randomized controlled clinical trials) supporting the long-term use of drugs to lower uric acid levels in gout patients. Gout is a form of arthritis caused by the accumulation of uric acid in the body. A build up of uric acid can result in the formation of needle-like crystals which when deposited in the joints result in acute pain. Gout used to be seen mostly in older men. It is now commonplace and is now seen in women and young adults too. According to investigative journalists at STAT gout specialists have recently formed two organizations, both of which are backed by drug company money. One of these organizations promotes gout research; the other advocates long-term use of drugs to lower uric acid levels. STAT writers report that some rheumatologists objecting to the ACP guidelines receive substantial compensation from drug companies. What's a patient to do? Read the STAT article [here](#).

Online Health Dashboard Offers Accurate, Actionable, City-Level Data

Mayors, public health officials and local stakeholders in 4 US cities can now compare the health of their city's residents to national averages for many health conditions and health risks. NYU's School of Medicine and Robert Wagner School of Public Service and the National Resource Network with funding from the Robert Wood Johnson Foundation have piloted a web-based [health data visualization tool](#). Until now, most health data has been unavailable at the city level. The dashboard allows cities to assess the health of their neighborhoods and enact policies to reduce important risk factors. The website offers data on

traditional health measures like teen birth rate and adult obesity; as well as non-health measures that affect health, like neighborhood walkability, air quality, and unemployment rate. So far, the dashboard only includes data for Flint, MI; Kansas City, KS; Providence, RI; and Waco, TX. The dashboard may be expanded to other cities in the future.

Does Social Media Keep Your Child Up at Night?

A [new study](#) published in the *Journal of Youth Studies*, found 20% of teens aged 12-15 regularly wake up at night to send or check messages on social media. Study authors found that teens who used social media nearly every night reported they were constantly tired at school. The authors also found that students who go to school feeling tired say they are much less happy than others their age. Because there are many reasons for tiredness at school, further larger studies will be needed to draw conclusions about the effects of social media on sleep deprivation.

Do Patient Advocacy Groups Have Patients' Interests at Heart?

A [new study](#) published in *JAMA Internal Medicine* found that over 2/3 of patient advocacy organizations (PAOs) accept industry donations. A small percentage receive over 50% of their funding from industry. Most of the industry funding comes from drug companies, device manufacturers, and biotechnology companies. PAOs educate and counsel patients, fund research, and influence allocation decisions made by legislatures and government agencies. The study's findings raise concerns about the independence of PAOs.

Create Your Family Health History

Looking for an activity to enliven your next family get-together? How about interviewing relatives about their health? The National Human Genome Research Institute and the National Institute on Aging offer a guide to [Creating a Family Health History](#). Knowing what diseases and conditions are present within a family can help members take steps to lower their risk. The National Institute on Aging offers a helpful guide to creating a family health history. The

guide suggests questions to ask; links to print and online tools; how to respond to questions your family members may ask; and how to deal with information gaps. If you are thinking about genetic testing, check out this [frequently-asked questions](#) page from the National Human Genome Research Institute.

New Technologies to Benefit Your Health

How could technology affect your health in 2017? How about smart shoes that can gauge muscle fatigue; a wearable skin patch that can detect your stress levels by tracking your heart rate variability; or contact lenses that monitor blood glucose levels? Read more about how technology is making us healthier in this article from [Men's Health](#).

Origin of Ovarian Cancer - Radical Shift in Thinking

[Research](#) on BRCA1 and BRCA2 mutations have led to the discovery that most ovarian cancers actually begin in the fallopian tubes, then spread to other pelvic organs. Women with BRCA1 and BRCA2 mutations often choose to have both their ovaries and fallopian tubes removed to prevent cancer. Pathologists studying the tissue samples removed during these preventive surgeries found early cancers and precancerous conditions only in the fallopian tubes, never in the ovaries. To more accurately reflect the origins of ovarian cancer, the disease has been renamed *pelvic serous carcinoma*, or PSC. The shift in thinking about ovarian cancer's origins should lead to new ways to screen for, prevent, and treat the disease. The new understanding of the disease may also eliminate premature menopause and preserve a woman's child-bearing capabilities. Women at high risk for PSC, might need to have only their fallopian tubes removed, and not their ovaries.

The Importance of Asking Questions

Are you one of those patients who draws a blank when asked by your physician whether you have any questions? Or, perhaps you believe your physician knows what's best for you, so you think it improper to question her/him. When

there is only a paper gown between you and your physician, it's easy to feel overwhelmed or intimidated. But, if you don't ask questions, your physician may think you understand everything or don't want to know more. Speak up to clarify spellings, meanings of medical terms, or instructions you need to follow. Is your problem permanent? How will it affect your future? What are the side effects you might experience from taking your medications? What will a diagnostic test reveal and will it pose any health risk to you? The [NIH Senior Health website](#) describes how to talk to your physician and offers a [printable list of questions](#) you can take with you on your next office visit. Even if you don't consider yourself an older adult, the site has excellent advice appropriate for patients of almost any age.

Winter Storm Readiness

Planning ahead is the key to keeping you and your family safe this winter. Check out the Center for Disease Control's "[Natural Disasters](#)" page for tips on what you can do to prepare your home and car for the next winter storm. The site includes "[Winter Ready Checklists](#)" to help you identify and keep track of all the emergency supplies and contact information you will need.

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