Kaiser Permanente: Healthy Doesn’t Stop in the Exam Room

Ever wonder what really sets Kaiser Permanente apart? Known for high-quality, affordable health care throughout the southland, Kaiser Permanente offers a different approach—one that puts care and coverage together, and centers around its members.

At the core of Kaiser Permanente’s integrated approach is prevention. Health screenings catch problems early, when they are easier—and safer—to treat, and include routine checkups and preventative screenings, like mammograms, cholesterol and BMI.

Kaiser Permanente’s advanced electronic medical record system enables its physicians and care teams to deliver best-in-class care and strive for clinical excellence.

“At Kaiser Permanente, we have the ability to transform patient care,” said Peter Laimins, MD, orthopedic surgeon and Physician-in-Charge of Santa Clarita Medical Offices 2. “The system provides information about what treatments and protocols are recommended. It makes us better physicians.”

Through seamless care coordination, providing access to patients’ records for all their doctors, pharmacists, and specialists, Kaiser Permanente’s electronic medical record system helps to improve clinical outcomes on a daily basis.

Telehealth and virtual care options are also part of everyday practice at Kaiser Permanente. It is transforming the way Kaiser Permanente delivers care, so it meets people where they live, work, and play to help members live healthier lives. In order to do that, Kaiser Permanente is providing care in less traditional ways.

Using their mobile devices or computers, members can fill out digital forms and questionnaires, e-mail their doctor’s office, refill most prescriptions, receive a teleconsult or video visit, and receive information on upcoming procedures.

When it comes to quality care in Kaiser Permanente’s medical offices, members will notice a dramatic difference upon entering Santa Clarita Medical Offices 2, which opened on March 14 in the Santa Clarita Valley on Tourney Road.

The facility brings an evolved design, with a welcoming aesthetic that doesn’t look or feel like your typical clinical setting. The 64,000-square-foot medical offices represent Kaiser Permanente’s evolution toward creating highly efficient, environmentally-friendly facilities designed to improve the member experience.

“The design of our new medical offices empowers physicians with greater connectivity, using advanced technology,” said Laimins. “For example, if I decide I need to bring in a specialist for an additional consultation with a patient, video consults will be available on-demand so our patients won’t have to make another appointment, saving valuable time.”

Additional technology enhancements include the option for remote check-in via the Kaiser Permanente app, and text message alerts notifying members when their provider is ready. Open-space waiting areas will educate, entertain, and reinforce Kaiser Permanente’s commitment to total health.

“Physicians at Kaiser Permanente are able to focus 100 percent on patient care. We’re supported by a service-oriented administrative staff that handle day-to-day business operations,” said Laimins. “We take pride in providing patient-centered care that is team-delivered and evidence-based.”

Kaiser Permanente Santa Clarita Medical Offices 2 is now open, offering specialty services such as cardiology, hematology, oncology, neurology, orthopedics, podiatry, urology and more—plus several outpatient surgical suites.

Other services offered in the new building include Laboratory, Pharmacy and Urgent Care to further enhance the patient care experience.

For more information on Kaiser Permanente in Santa Clarita, visit kp.org/santaclarita.

Kaiser Permanente: Healthy Doesn’t Stop in the Exam Room

Heath Spotlight

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High Exposure to Radiofrequency Radiation Linked to Tumor Activity

High exposure to radiofrequency radiation (RFR) in rodents resulted in tumors in tissues surrounding nerves in the hearts of male rats, but not female rats or any mice, according to draft studies from the National Toxicology Program (NTP). The exposure levels used in the studies were equal to and higher than the highest level permitted for local tissue exposure in cell phone emissions today. Cell phones typically emit lower levels of RFR than the maximum level allowed. NTP's draft conclusions were released earlier this year as two technical reports, one for rat studies and one for mouse studies.

The incidence of tumors, called malignant schwannomas, that were observed in the heart increased in male rats as they were exposed to increasing levels of RFR beyond the allowable cell phone emissions. Researchers also noted increases in an unusual pattern of cardiomyopathy, or damage to heart tissue, in exposed male and female rats. Overall, there was little indication of health problems in mice related to RFR.

The reports also point out statistically significant increases in the number of rats and mice with tumors found in other organs at one or more of the exposure levels studied, including the brain, prostate gland, pituitary gland, adrenal gland, liver, and pancreas. However, the researchers determined that these were equivocal findings, meaning it was unclear if any of these tumor increases were related to RFR.

"The levels and duration of exposure to RFR were much greater than what people experience with even the highest level of cell phone use, and exposed the rodents' whole bodies. So, these findings should not be directly extrapolated to human cell phone usage," said John Bucher, Ph.D., NTP senior scientist. "We note, however, that the tumors we saw in these studies are similar to tumors previously reported in some studies of frequent cell phone users."

To conduct the studies, NTP built special chambers that exposed rats and mice to different levels of RFR for up to two years. Exposure levels ranged from 1.5 to 6 watts per kilogram (W/kg) in rats, and 2.5 to 12 W/kg in mice. The low power level for rats was equal to the highest level permitted for local tissue exposures to cell phone emissions today. The animals were exposed for 10-minute on, 10-minute off increments, totaling just over 9 hours each day. The studies used 2G and 3G frequencies and modulations still used in voice calls and texting in the United States. More recent 4G, 4G-LTE, and 5G networks for streaming video and downloading attachments use different cell phone signal frequencies and modulations than NTP used in these studies.

The NTP studies also looked for a range of noncancer health effects in rats and mice, including changes in body weight, evidence of tissue damage from RFR-generated heating, and genetic damage. Researchers saw lower body weights among newborn rats and their mothers, especially when exposed to high levels of RFR during pregnancy and lactation. Yet, these animals grew to normal size.

"These studies were complex and technically challenging, but they provide the most comprehensive assessment, to date, of health effects in rats and mice from exposure to RFR," said Bucher. "Cell phone technologies are constantly changing, and these findings provide valuable information to help guide future studies of cell phone safety."

The U.S. Food and Drug Administration nominated cell phone radiofrequency radiation for study by NTP because of widespread use of cell phones. FDA and the Federal Communications Commission are jointly responsible for regulating wireless communication devices. NTP is a federal interagency program headquartered at NIEHS, whose goal is to safeguard the public by identifying substances in the environment that may affect human health. For more information about NTP and its programs, visit ntp.niehs.nih.gov.
Scientists Search for the Clocks Behind Age-Related Brain Disorders

To understand the link between aging and neurodegenerative disorders such as Alzheimer’s disease, scientists from the National Institutes of Health compared the genetic clocks that tick during the lives of normal and mutant flies. They found that altering the activity of a gene called Cdk5 appeared to make the clocks run faster than normal, and the flies older than their chronological age. This caused the flies to have problems walking or flying later in life, to show signs of neurodegeneration, and to die earlier.

“We tried to untangle the large role aging appears to play in some of the most devastating neurological disorders,” said Edward Giniger, Ph.D., senior investigator at the NIH’s National Institute of Neurological Disorders and Stroke and the senior author of the study published in Disease Models & Mechanisms. “Our results suggest that neurodegenerative disorders may accelerate the aging process.”

On average, the normal flies in this study lived for 47 days. To create a genetic clock, Dr. Giniger’s team measured the levels of every gene encoded in messenger RNA molecules from cells from the heads and bodies of flies at 3, 10, 30, and 45 days after birth. This allowed the researchers to use advanced analysis techniques to search for the genes that seemed to be sensitive to aging, and create a standard curve, or timeline, that described the way they changed.

When they performed the same experiments on 10-day-old mutant flies and compared the results with the standard curve, they found that the flies were “older” than their chronological age. Altering Cdk5 activity made the brains of the flies appear genetically to be about 15 days old and their bodies to be about 20 days old.

Preclinical studies suggest that Cdk5 is a gene that is important for the normal wiring of the brain during early development and may be involved in some neurodegenerative disorders, including ALS, Parkinson’s and Alzheimer’s disease. In this study, Dr. Giniger’s team found that eliminating or increasing Cdk5 activity beyond normal levels shortened the lives of the flies to about 30 days. After 10 days of age, the manipulations reduced the distance flies could climb up tubes and the alterations caused older flies to have signs of neurodegeneration, including higher than normal levels of brain cell death and degradation.

More analysis showed that altering Cdk5 activity changed the level of several groups of genes that were also affected by aging, including those that control immunity, energy, and antioxidant activity.

To explore this idea further, the researchers tested the strength of the flies’ antioxidant defenses against toxic versions of several chemicals found in cells called oxygen free radicals. Initial experiments showed that aging reduced these defenses in normal flies. Three-day-old healthy flies lived for about 100 hours after exposure to free radicals, and that time decreased with age. In contrast, the defenses of Cdk5 mutant flies were even weaker as they died sooner than the control flies at all ages.

“Our results suggest that aging may not just predispose an individual to degeneration, as we thought. Acceleration of aging may actually be part of the mechanism by which degenerative disease disrupts the structure and function of the brain,” said Dr. Giniger. “We hope that our approach will help researchers untangle the mysteries behind several neurodegenerative disorders.”

His team plans to continue investigating the role of aging in the process of neurodegeneration.

NINDS is the nation’s leading funder of research on the brain and nervous system. The mission of NINDS is to seek fundamental knowledge about the brain and nervous system and to use that knowledge to reduce the burden of neurological disease.
NIH Launches HEAL Initiative, Doubles Funding to Accelerate Solutions to Fight National Opioid Epidemic

Every day, more than 115 Americans die after overdosing on opioids, said Dr. Collins. “That is a four-fold increase since 2000, and the numbers continue to climb. NIH has been deeply invested in efforts to counter this crisis through research, but we are determined to do even more.”

The focus of these discussions has centered on the numbers continue to climb. NIH has worked with stakeholders and experts across scientific disciplines and sectors to identify areas of opportunity for research to combat the opioid crisis.

The focus of these discussions has centered on ways to reduce the over prescription of opioids, accelerate development of effective non-opioid therapies for pain, and provide more flexible options for treating opioid addiction. NIH is committed to bringing the full power of the biomedical research enterprise to bear on this crisis.

HEAL will bolster research across the NIH to:

- Prevent Addiction through Enhanced Pain Management:
  - Launch a longitudinal study to follow patients 1) after acute onset of musculoskeletal pain and 2) after surgery to identify biomarkers that might predict which individuals are more likely to transition from acute to chronic pain.
  - Support research and -omics technologies developed through the NIH BRAIN Initiative and SPARC program to identify potential new targets for treatment of chronic pain and 2) objective biomarkers to predict which individuals will respond to a treatment.
- Improve Treatments for Opioid Misuse Disorder and Addiction:
  - Expand therapeutic options for treating addiction, including extending the options for Medication-Assisted Therapy (MAT) and overdose reversal treatments. Develop immuno-therapies that enlist the immune system to block entry of heroin or synthetic opioids to the brain to prevent overdose or relapse for individuals at high risk for addiction. Ensure that naloxone is already proven MAT in combination with other non-opioid approaches such as cognitive therapy and meditation.
  - Evaluate treatments and long-term consequences of Neonatal Opioid Withdrawal Syndrome by expanding the Advancing Clinical Trials in Neonatal Opioid Withdrawal Syndrome (ACT NOW) project, tapping into the Environmental Child Health Outcomes and IDeA States Pediatric Clinical Trials Network.
  - Working with federal and state partners, pilot demonstration projects to test the integration of multiple addiction prevention and treatment options in healthcare and criminal justice settings in states with the highest rates of opioid misuse and overdose to inform evidence-based practice.
  - Despite multiple effective prevention and treatment approaches, the majority of the 2 million Americans with opioid use disorder do not receive appropriate or adequate treatment for their addiction.

Science and technology have illuminated our understanding of the mechanisms underlying addiction,” said Nora D. Volkow, M.D., director of the National Institute on Drug Abuse. “With these additional resources, we can develop more customized, high-quality treatments for addiction and pain, as well as harness implementation science to bring evidence-based changes to our healthcare system, including treatment for those in the criminal justice environment.”

The NIH HEAL Initiative will build on extensive, well-established NIH research that has led to successes such as the development of the nasal form of naloxone, the most commonly used nasal spray for reversing an opioid overdose; the development of buprenorphine for the treatment of opioid use disorder; and the use of nonopioid and mind-body techniques to help patients control and manage pain, such as yoga, tai chi, acupuncture, and mindfulness meditation. The initiative will tap into the expertise of the NIH Pain Consortium, which was established to enhance collaboration among NIH institutes, centers and offices that conduct pain research.

“This nationwide crisis stemmed initially from over-prescribing of opioid medications to treat pain,” said Walter J. Kowalski, M.D., director of the National Institute of Neurological Disorders and Stroke, the lead NIH institute on pain. “The HEAL Initiative will build on the scientific evidence that informs best practices to effectively treat patients with pain while preventing addiction. A major focus will be to understand why some people go from acute to chronic pain, with the intent to prevent that transition. Importantly, the initiative will drive the science to enable the development of powerful, non-addictive pain treatments that would limit the need for opioid medications in the future.”

NIH, the nation’s medical research agency, includes 27 Institutes and Centers and is a component of the U.S. Department of Health and Human Services. NIH is the primary federal agency conducting and supporting basic, clinical, and translational medical research, and is investigating the causes, treatment, and cures for both common and rare diseases. For more information about NIH and its programs, visit www.nih.gov.

Will Supplements Help Your Workout or Diet Routine?

Although the goals of losing weight and improving fitness are best met with a nutritious diet and regular physical activity, many people may turn to dietary supplements for a boost to their routines. To help cut the confusion, the Office of Dietary Supplements (ODS) at the National Institutes of Health has two new resources to help people understand what is known about the effectiveness and safety of many ingredients in dietary supplements promoted for fitness and weight loss.

“Dietary Supplements for Exercise and Athletic Performance,” covers products — sometimes called ergogenic aids — that claim to improve strength or endurance, increase exercise efficiency, achieve a performance goal more quickly, and increase tolerance for more intense training.

“Dietary Supplements marketed for exercise and athletic performance can’t take the place of a healthy diet, but some might have value for certain types of activity,” said Paul M. Coates, Ph.D., director of ODS. “Others don’t seem to work, or even harm.”

This fact sheet covers more than 20 ingredients found in fitness supplements, including antioxidants, beetroot, tart cherry, branched-chain amino acids, caffeine, creatine, and protein. Creatine, for example, might help with short bursts of high-intensity activity like sprinting or weight lifting, but not for endurance efforts like distance running or swimming. However, antioxidants such as vitamins C and E don’t seem to improve any type of physical activity, though they’re needed in small amounts for overall health.

More than two-thirds of adults in the United States are overweight or obese, and many are trying to lose those extra pounds. “Dietary Supplements for Weight Loss” guides readers through the confusing set of options in the marketplace.

“Americans spend over $2 billion a year on dietary supplements promoted for weight loss, but there’s little evidence they actually work,” said Anne L. Thurn, Ph.D., director of the ODS Communications Program. “And people may not know that many manufacturers of weight-loss supplements don’t conduct the tests that are needed in humans to find out whether their product works and is safe.”

This fact sheet covers 24 ingredients found in these products, including African mango, beta-glucans, chromium, garcinia, green tea, hoodia, and raspberry ketones. Chromium, for example, might help you lose a very small amount of weight and body fat, but is safe, and raspberry ketones haven’t been studied enough to know whether they’re safe or effective. And while drinking green tea is safe, taking green-tea extract pills has been linked to liver damage in some people.

Both fact sheets are available in a health professional version that is detailed and fully referenced, as well as consumer versions in both English and Spanish. In fact, most ODS fact sheets on dietary supplement ingredients are available in these multiple formats.

“We encourage people to talk with their healthcare providers to get advice about dietary supplements and to visit the ODS website to learn valuable information about these products,” said Coates. “People can also sign up for the ODS listserv to be notified when we add new information to our website.”

Part of the Office of the Director at the National Institutes of Health, the Office of Dietary Supplements (ODS) retains knowledge and understanding of dietary supplements by evaluating scientific information, stimulating and supporting research, disseminating research results, and educating the public to foster an enhanced quality of life and health for the U.S. population. For more information on ODS and its programs, see https://ods.od.nih.gov.
“I really believe the hospital, staff and everyone involved in my care saved my life. I got the best care I could get at the fastest response.”

Greg H.
Cardiovascular Services Patient

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