App-ropriate fitness tools available

Mike Hughes  | The Ohio State University Wexner Medical Center

From tracking your run to creating a weight-loss plan, fitness and nutrition apps for your smart phone are a medium that allow users to live healthier lifestyles. At the upcoming “Is There an App for That? Fitness at Your Finger-tips” webinar, faculty and staff can learn how to leverage this new technology to their advantage. Led by Julie Kennel, PhD, RD, CSSD, LD, of the Department of Human Nutrition and OSU Extension, this webinar will walk attendees through appropriate nutrition and fitness resources available for smart phones, tablets and other devices.

“Many studies have demonstrated that keeping a food and/or physical activity record can aid in weight loss and help maintain the loss,” says Kennel. People who use their cell phone to monitor their calorie loss and receive personalized fitness tips lose significantly more weight than people who receive no support, according to a Temple University study.

Fitness apps can be cost effective, proving that losing weight need not shrink your savings account as well. With the costs of health center fees and gym equipment, it might seem like weight loss is only available to those with large bank accounts. Fortunately, our faculty and staff have an array of resources to help them achieve better health. Personalizing the right mix of programs and support can be the key to success. Ohio State’s Your Plan For Health offers fitness center discounts, educational programs and personal health coaches that can help faculty and staff achieve their health and fitness goals.

“There are many high-quality free apps. Try the free apps first, and if they do not offer the services to fit your personal interests/needs, then you can consider an upgrade,” suggests Kennel.

At this time of year, many may find their fitness goals stretched between dwindling New Year’s resolutions and promises to get in shape for summer. The combination of Your Plan For Health resources and fitness and nutrition apps can be great ways to find the help you need to reach your ongoing health goals.

“Tracking software for keeping track of your diet and exercise have been around for years, but apps are portable and make the accounting process easier,” says Kennel. If you haven’t found the help you need, Kennel suggests you try again. “New apps in this area surface on a regular basis,” she adds.

America’s Best – #45 Neurosciences

The USNews recognition of Ohio State’s expertise in Neurology/Neurosurgery is reflective of advancements made within the overarching Neurosciences Signature Program, which was formed in 2006 under the direction of E. Antonio Chiocca, MD, PhD.

Ohio State offers Neurosciences-related clinical programs that include Neuro-Oncology/Skull Base, Spinal Disorders, Stroke/Cerebrovascular Diseases, Neuro-muscular/Multiple Sclerosis, Neurodegenerative Disorders/Dementia, and Neuroradiology, including Movement Disorders/Epilepsy and Neuropsychiatric Disorders.

This clinical expertise is supported by research and education faculty located primarily in the Departments of Neurology, Neurological Surgery, Physical Medicine and Rehabilitation, Otolaryngology, Basic Neurosciences and Psychiatry as well as several other departments and colleges. In all mission areas, Neurosciences faculty work closely with the Cancer and Imaging Signature Programs.

Within the magazine-defined category of Neurology/Neurosurgery, Ohio State has earned clinical acclaim for the care of patients with a variety of neurological conditions, most notably epilepsy, multiple sclerosis, movement disorders, disorders of higher cortical function, neuro-oncology, sleep disorders and neuromuscular disease such as muscular dystrophy, myasthenia gravis and amyotrophic lateral sclerosis. Neurological Surgery faculty have been recognized for their surgical and technological expertise in the treatment of medical conditions of the brain and spine, namely strokes, aneurysms, cancerous tumors, traumatic injuries and epilepsy, to name a few.

As a result of this overarching expertise in Neurosciences, Ohio State is uniquely positioned to bring innovative treatments to the people of Ohio. Deep-Brain Stimulation (DBS) is one example of a leading-edge surgical procedure that can improve quality of life and decrease physical disability for individuals suffering from neurological disorders, such as tremors. DBS involves neurosurgical implantation in the brain of tiny electrodes, which are connected to a small pacemaker-like device within the chest wall. The electrodes deliver electrical signals that calm abnormal brain signals. The goal of these electrical signals is to alleviate disabling symptoms and restore patients to better functioning.

Another example of an area of excellence relates to the medical, rehabilitative and minimally invasive treatments for strokes and cerebrovascular diseases. Utilizing small catheters, our doctors can navigate inside blood vessels to open up blood flow to the brain or stop brain arteries from bleeding. The stroke rehabilitation techniques of Dodd Hall are known worldwide and have brought countless numbers of stroke patients back to their lives.

The USNews & World Report 2011 rankings of “America’s Best Hospitals” included 11 of Ohio State’s Wexner Medical Center services among the nation’s best. These are: Cancer; Cardiology/Heart Surgery; Diabetes/Endocrinology; Ear, Nose and Throat; Gynecology (Women’s Health); Nephrology; Neurology and Neurosurgery; Orthopaedics; Pulmonology; Rehabilitation; and Urology. Seven services ranked in the Top 25 nationally.

Ranked among “America’s Best” for 19 consecutive years, Ohio State was also chosen by USNews as the top hospital in the central Ohio metro region.
Medical Briefs

Study confirms strategy against infectious diseases

New research shows that infectious disease-fighting drugs could be designed to block a pathogen’s entry into cells rather than to kill the pathogen itself. Historically, medications for infectious diseases have been designed to destroy the offending pathogen. This new strategy is important, researchers say, because many parasites and bacteria can eventually mutate their way around drugs that target them, resulting in drug resistance. Abhay Satoskar, PhD, Pathology, is senior author of the study, which appears online in the journal Proceedings of the National Academy of Sciences.

Diabetes medication can improve heart health

Ohio State researchers have shown in lab tests that a new type of diabetes medication that lowers blood sugar can also improve cardiovascular health. Sanjay Rajagopalan, MBBS, Cardiovascular Medicine, tested a new form of a glyptin, a class of drugs that promotes fire and burn safety. The Safe Signals project includes a video, workbook and vinyl clings with important home safety information for people with autism (ages 18 to 26). “The focus of the project is to develop fire and burn safety at home for older teens and young adults with autism. To our knowledge no other resource quite like this exists for this population,” says Lisa Murray-Johnson, Medical Center Patient Education. The project was led by OSU Health System Nursing Patient Education, Nisonger Center and Autism Speaks, the world’s largest autism research and advocacy organization.

Drug shows promise as CLL treatment

An experimental drug that works by blocking the export of key control molecules from the nucleus of cancer cells shows promise as a treatment for chronic lymphocytic leukemia (CLL) and other incurable B-cell malignancies, according to a new study by Ohio State researchers. The agent, called KPT-SINE, belongs to a new class of drugs called selective inhibitors of nuclear export (SINE). The agent was developed by Karyopharm Therapeutics Inc. It is designed to kill cancer cells by restoring biochemical pathways that normally cause unhealthy cells to self-destruct through apoptosis.

Study reveals how normal cells fuel tumor growth

Study results published in the journal Nature Cell Biology shed light on how normal cells in tumors can fuel tumor growth. Led by researchers at Ohio State’s Comprehensive Cancer Center, the study suggests new strategies for controlling tumor growth by developing drugs that disrupt the communication between tumor cells and the normal cells within the tumor. Co-principal investigators are Michael Ostrowski, PhD, chair of Molecular and Cellular Biochemistry, and Gustavo Leone, PhD, Molecular Virology, Immunology and Medical Genetics.

Learn more about how The Ohio State University Wexner Medical Center is “creating the future of medicine to improve people’s lives” by visiting the News and Media Room at medica...
P4 Medicine: Searching for ways to predict, prevent oral cancer

Darrell E. Ward | The Ohio State University Wexner Medical Center

A study led by Ohio State’s Maura Gillison, MD, PhD (see profile below), provides important information that could lead to methods of identifying those at greater risk for oral cancer and determining ways to prevent the disease.

In research published online in January in the Journal of the American Medical Association, Gillison and colleagues found that 7 percent of Americans have a current oral infection with HPV (human papillomavirus). The study is the first major infection rates for the whole country, and these infection rates are higher than experts had expected.

Gillison commented that the study “provides us some reassurance” that most people with oral HPV will not get oral cancer. Millions may have oral HPV, but fewer than 15,000 Americans get HPV-linked oral cancer each year. However, the study should prompt research into whether the existing vaccines for cervical cancer protect against oral HPV-linked cancer.

While HPV is best known for causing cervical cancer and genital warts, it can also cause cancer at the back of the throat, tonsils and base of the tongue. Although the viruses can be found in saliva, HPV appears to be mostly spread through sexual contact, rather than more casual contact such as kissing.

“Our results have important research as well as public health implications. Natural history studies of cervical HPV infection were essential for the development of public health interventions, such as HPV vaccination to prevent and HPV detection to screen for cervical cancer,” the study authors write. “Natural history studies of oral HPV infection are therefore necessary to understand the effects of age, sex, and modifiable risk factors (e.g., smoking and sexual behavior) on the incidence and duration of oral HPV infection.”

Ohio State signs on to Joining Forces initiative

As part of First Lady Michelle Obama’s Joining Forces initiative, Ohio State's Wexner Medical Center and College of Medicine, the Association of American Medical Colleges and the American Association of Colleges of Osteopathic Medicine recently committed to the next generation of doctors and enhancing education provided at medical schools and research facilities to ensure military heroes receive the highest quality care.

Recognizing veterans’ and their families’ sacrifice and commitment, Ohio State pledges to train the nation’s physicians to meet veterans and their families’ unique and personalized healthcare needs, including Post Traumatic Stress Disorder (PTSD) and Traumatic Brain Injury (TBI).

“We are honored to participate in the White House Joining Forces initiative to address the healthcare needs of military service members and veterans and their families,” says Charles J. Lockwood, MD, MHCM, dean of Ohio State’s College of Medicine.

“Our goal is to show those who have responded to the nation’s call to war that their country is there for them, and will continue to support them,” adds Bryan Martin, DO, associate dean for Graduate Medical Education and associate medical director of University Hospital.

“Faces at Ohio State's College of Medicine are training medical students to have a basic understanding of traumatic brain injury suffered during deployment and will leverage the students’ knowledge to provide the highest quality of personalized care to military service members and veterans,” says Martin, who is also a combat veteran of the first Gulf War.

The initiative focuses on key priority areas — employment, education and wellness — while raising awareness about the service, sacrifice and needs of America’s veterans and military families.

Information is available at JoiningForces.gov.
Time and Change: Neurosurgery Leadership

The excellence of Ohio State’s Neuroscience Signature Program, which includes several areas of Medical Center expertise such as Neurological Surgery and Neurology, are built upon a long tradition of excellence that can be traced to the early 1900s.

Harry LeFever, MD, has been credited as the founder of Ohio State Neurosurgery. After studying in Philadelphia, Boston and France, he returned to Columbus in 1932 and limited his surgical practice to Neurosurgery, which was considered unusual at the time because of a scarcity of neurosurgical cases.

In the 1950s, LeFever increased the Neurosurgery faculty with the addition of three physicians who earned local and national fame: William Hunt, MD; John Meagher, MD; and Martin Sayers, MD.

Most notable was Hunt, who followed LeFever as chief of Neurosurgery in 1963, a post he held for 25 years. Hunt, working with pathologist Eduardo Tolosa, MD, defined Tolosa-Hunt Syndrome, a painful paralysis of the eye muscles. Working with Ohio State medical resident Robert Hess, MD, Hunt created the widely used Hunt-Hess classification of intracranial aneurysms. From 1973 to 1988, Hunt was the principal investigator and director of the nationally recognized Spinal Cord Injury Research Center, based at Ohio State.

Hunt’s impact on the field of neurosurgery is also evidenced by the honor afforded him in 1998 when he became the first recipient of the Neurosurgical Society of America’s Gold Medal for lifetime achievements.

Today, Ohio State’s Neuroscience Signature Program is led by internationally acclaimed E. Antonio Chiocca, MD, PhD. Chiocca is a fellow of the American Academy of Neurological Surgeons, the American Society for Clinical Investigation and also of the American Association for the Advancement of Science. In 2007, he was awarded the Grass Award in Neurosciences by the Society of Neurological Surgeons.

From 1973 to 1988, Hunt was the principal investigator and director of the nationally recognized Spinal Cord Injury Research Center, based at Ohio State. In 2008, by votes of the American Association of Neurological Surgeons, the Congress of Neurological Surgeons, and the Society for Neuro-oncology, Chiocca was awarded the highly prestigious Farber Award for his work in brain tumor research. In 2011, the University of Texas Graduate School of Biomedical Sciences awarded him its 2011 Distinguished Alumnus.

But for Ohio State, baby Macaiah might not be here today. The Ohio State University Wexner Medical Center offers unparalleled expertise, including prenatal genetic screening and diagnosis, high-risk pregnancy care, advanced ultrasound and one of the largest diabetes in pregnancy programs in the country. Our renowned physicians, innovative research and unmatched experience will provide the personalized care you need.

Learn more about baby Macaiah’s arrival and OSU Maternal Fetal Medicine care at medicalcenter.osu.edu/go/MFM. I 614-293-2222