

Health Kentucky

A Report on Medical Research, Innovation, Life Sciences, Facilities and Healthcare Providers

*New UK College of Pharmacy building will be the
largest pharmacy education facility in the world*

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Health Kentucky

LEXINGTON AND EASTERN KENTUCKY

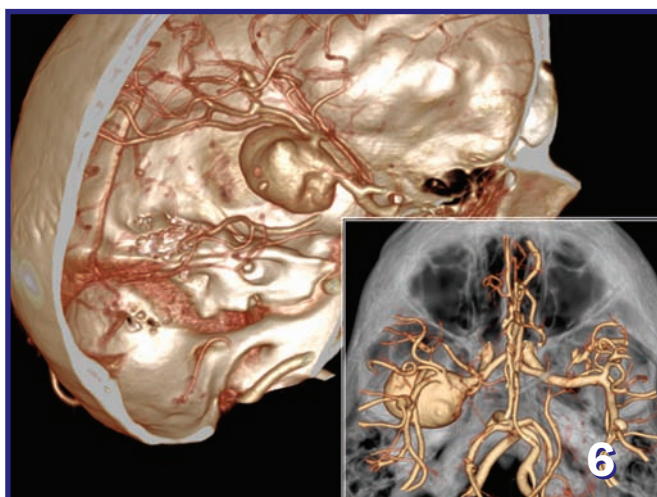
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On the Cover

The University of Kentucky College of Pharmacy's new education building is now under construction. The cover photo was made on March 30, 2009. Students, facility and staff will start to occupy the building in late 2009. The 286,000 s.f. facility will cost approximately \$155 million. Interior finishes will be fully completed in 2010.

From The Publisher

The editors and staff of Lane Communications Group are very enthusiastic about *Health Kentucky*. The magazine provides in-depth information about the diversity of the state's health care industry; the high quality of medical services, facilities, training and research that are available; and how the health of Kentuckians is being improved.

Kentucky also benefits from the significant economic impact and employment opportunities that medical services provide the state's economy.



Ed Lane

2009 Health Kentucky

A Report on Medical Research, Innovation, Life Sciences, Facilities and Healthcare Providers

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The Lane Report

Kentucky
UNBRIDLED SPIRIT

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COMMERCE LEXINGTON INC.



Lexington is a Major Health Care Center

The medical payroll in Fayette County exceeds \$1.1 billion and is rapidly increasing

As one of the cornerstones of Mayor Jim Newberry's economic development platform, health care (along with horses and high-tech) is a major contributor to Lexington and Central Kentucky's economy.



Jim Newberry is
mayor of Lexington

In fact, health care is an economic juggernaut with both the highest employment and overall payroll of all the industries in Lexington. Health care also has the distinct effect of directly impacting the lives of the citizens of Lexington and Central Kentucky every day.

Far from resting on their heels, the health care industry in Lexington is growing to meet the continual demand from across our region and the commonwealth. Three major hospitals in Lexington, UK Chandler Medical Center, Central Baptist, and St. Joseph's are planning or have

A majority of patients at the University of Kentucky Chandler Medical Center come from more than 40 miles away because of the advanced-care services available there. UK Gill Heart Institute medical director Dr. David Moliterno, right, discusses an angiogram of a patient's heart with Dr. John Holt, a former cardiovascular fellow, in one of UK's advanced cardiovascular catheterization labs.

started major expansions of their current facilities. In addition, an increased focus on regional expansion has benefited the lives of countless more residents of the commonwealth who will be able to receive the very best medical care closer to where they call home.

Lexington has long been the proud home of a highly educated workforce. Census data tells us that among cities over 250,000 people, Lexington has the 11th highest percentage of citizens over age 25 with at least a bachelor's degree. That ties Lexington with both Portland, Oregon, and St. Paul, Minnesota. Furthermore, when education levels all the way down to



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high school are considered, Lexington has been named as the second most educated workforce in the nation (*Business Facilities*, 2008), trailing only Seattle, Washington. Health care in Lexington has long contributed to and benefited from this growing talent pool. Along with the UK Chandler Medical Center, which offers Colleges of Allied Health Sciences, Dentistry, Medicine, Nursing, Pharmacy, and Public Health; seven other colleges in the Lexington area are involved in medical-related instruction.

As Lexington and Central Kentucky rise to meet the challenges of current economic conditions, it is important to note that the growth of the health care industry is a key component of our diversified economy. When cities such as Lexington have a multitude of successful industries, they are naturally more resistant to economic downturns. Lexington has a very successful mix of agriculture, government, health care, and education that helps insulate the market from the sharp swings of more vulnerable industries such as manufacturing and construction. Major business magazines agree, as Lexington was named the 13th Best City for Riding Out a Recession (*BusinessWeek*, 2008).

Commerce Lexington is proud to recognize not only the size and scope of the city's health care industry, but also its positive impact on the quality of life for everyone in Lexington and Central Kentucky. Health care has been a contributing factor to such proud accolades as Lexington being named the 48th Best City to Live in Worldwide (Mercer Consulting, 2006) and one of 100 Best Communities for Young People (*America's Promise Alliance*, 2008).

To hear the many other great things people are saying about Lexington, visit bgrankings.commercelexington.com.

Employment and Payroll of Selected Industries in Fayette County

INDUSTRY	EMPLOYMENT	PAYROLL (\$1000)
Health Care and Social Assistance	26,824	\$1,134,727
Manufacturing	12,780	\$694,228
Professional, Scientific & Technical Services	11,706	\$565,934
Retail Trade	21,515	\$462,552
Construction	9,903	\$399,784
Finance, Insurance, & Real Estate	8,391	\$369,384
Wholesale Trade	6,979	\$335,175
Transportation, Warehousing & Utilities	6,155	\$244,896
Administrative & Support Services	9,241	\$225,824
Accommodation & Food Services	16,703	\$222,050
Arts, Entertainment & Recreation	2,248	\$48,923

Source: Bureau of Labor and Statistics (2007)

Kentucky Health Facts

INSURANCE	KENTUCKY RANK	U.S.
Total Population	4,269,245	N/A 304,059,724
Uninsured, % All Ages (2007)	13.6	24 15.3%
Uninsured, % 18 and under (2007)	8.0	30 11.0%

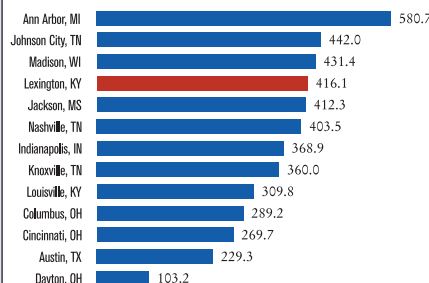
ADULT HEALTH INDICATORS	KENTUCKY	RANK	U.S.
Alzheimer's Estimated Cases, 65+ (2010)	80,000	24	4,844,100
Cancer, Estimated New Cases (2008)	23,270	22	1,437,180
Chlamydia: Rates per 100,000 pop. (2007)	209.2	47	370.2
Human West Nile Virus: New Cases (2008)	3	35	1,370
Tuberculosis, Number of Cases (2007)	120	26	13,299

CHILD AND ADOLESCENT HEALTH FACTS	KENTUCKY	RANK	U.S.
Infant Mortality per 1,000 Live Births (2005)	6.6	29	6.9
Low Birth Weight Babies (2006)	9.1%	12	8.3%
Tobacco: High School Student Use (2007)	33.6%	N/A	25.7%

KEY OBESITY FACTS	KENTUCKY	RANK	U.S.
Obesity Rates, % Adults (2005-07 average)	28.4%	7	N/A ^
Obesity Rates, % High School Students (2007)	15.6%	N/A	13.0%
Obesity Rates, % Children Age 10-17 (2004)	20.6%	3	14.8%

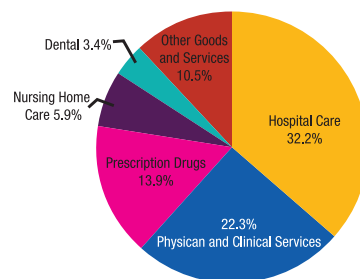
Source: healthyamericans.org

Physicians per 100,000 Residents Selected Metropolitan Areas, 2004



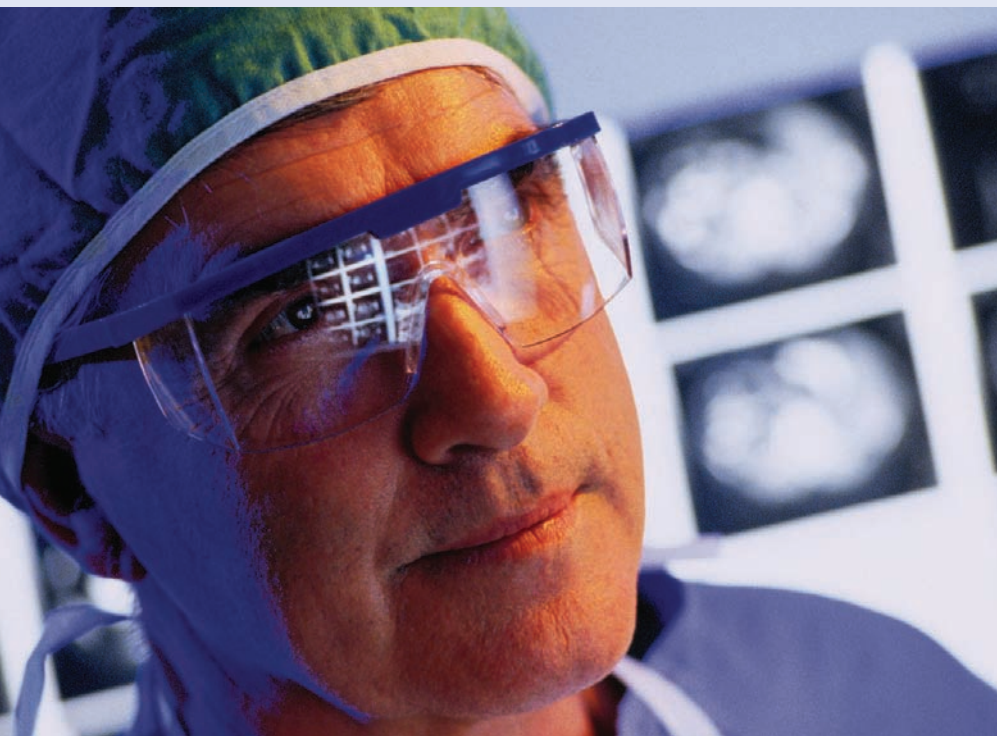
Source: American Medical Association

Personal Health Expenditures in Kentucky, 2004



Source: Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group

The Regionalization of Hospital Care



Lexington's health care providers reach out via networks that match patients and care for the most efficiency – and profit

Lexington's major hospitals are maturing their regionalization strategies, finding more ways to maximize patient access to services that are efficient and effective but also profitable. Regionalization is a process by which the marketplace apportionings simpler, lower-cost cases to community, primary-care hospitals and feeds the more complex, higher dollar secondary and tertiary cases to facilities with more sophisticated skill sets.

Hospital administrators describe it as a win-win arrangement. In various ways, they've been regionalizing operations for decades but continue finding opportunities to improve efficiencies.

Perhaps the biggest move in the past year was Lexington-based Saint Joseph HealthCare's merger with three other Catholic Health Initiative hospitals in Bardstown, Berea and London. Now they all operate under the St. Joseph Health System banner along with an eastern Kentucky facility in Martin that St. Joe already owned and another in Mt. Sterling that was acquired.

And at the University of Kentucky in Lexington, steel is rising for a 14-story, \$700 million facility that will replace A.B. Chandler Hospital as the centerpiece of UK HealthCare's system of hospitals, 80 clinics and 143 outreach programs.

Regionalization is akin to an invisible blueprint behind the concrete structures UK HealthCare and others are building. Hospital regionalization is a collective process that is optimally apportioning crucial resources – human as well as bricks and mortar and equipment – while routing patients to services and services to patients effectively. It improves services and makes them less expensive while becoming more profitable both for the acute-care major hospitals and the community hospitals.

That profitability is crucial to the smaller hospitals, which are important players in their local economies, as well as the major hospitals, which are able to upgrade their operations and services – and attract more research dollars in the case of academic medical centers.

It takes planning

UK HealthCare went through perhaps the most rigorous process of analyzing its operations, goals and relationship to the region it serves beginning about five years ago, said Dr. Michael Karpf, UK vice president for health affairs.

Karpf oversees implementation of the strategic plan UK HealthCare put together. It created a formal process to help UK HealthCare meet specific goals and fulfill its mission as a major university research facility.

Currently, more than 50 percent of patients admitted to UK's hospitals still come from more than 40 miles away from Lexington, and those patients are a vital component of the system, said Karpf.

Today, though, community hospitals provide most of the primary care, and do so more cost-effectively, something the



Dr. Michael Karpf,
vice president for
health affairs,
University of Kentucky

strategic plan recognizes. More complex cases are fed to UK, allowing doctors there to focus on and improve their expertise in difficult subspecialties – for example, kidney transplantation.

This same process is being played out across the state with other major institutions, such as UofL HealthCare, Jewish Hospital and St. Mary Healthcare, St.



Mike Rust, executive director, Kentucky Hospital Association

Joseph Health System, St. Elizabeth Medical Center and St. Luke Hospitals, and Norton Healthcare, which is the state's largest provider.

"Each individual partnership must be evaluated for what it brings to the community," said Mike Rust, executive director of the Kentucky Hospital Association. "I've been here for 12 years now. It goes in cycles; at any given point there's always folks talking to each other."

Technology drives change

Marketplace-driven financial efficiencies are a major driver for regionalization, Rust confirmed, but several other factors also are creating change. Technology is a motivator, he said, pointing especially to remote medical robotics, mobile MRI units and other testing devices, and the telemedicine opportunities created by broadband Internet connectivity. Meanwhile, like the rest of the nation, the commonwealth is aging and growing more obese, factors that are increasing the need for services everywhere.

St. Joseph Health System has used the latest tech capabilities to create seamless connectivity among its hospitals, said Gene Woods, CEO. "A radiologist in Lexington can instantly read an image from London or Bardstown at 3 a.m.," he said.

St. Joseph also plunged into medical robotics and claims it was the first in Kentucky to place the amazing units at its locations. The robots, sometimes dressed in lab coats with stethoscopes around their "neck," can cruise hospital floors and rooms and allow specialists to assess a patient's condition and needs from across the state using a laptop decked out with special controls, including a Webcam. The robot's "head" is a screen displaying the face of the doctor in real time.

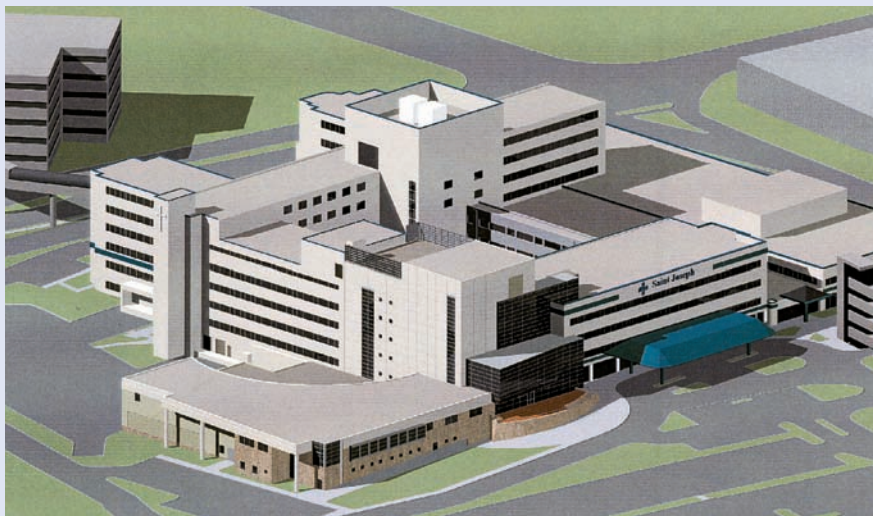
It's sight and sound capability that gives a doctor direct, nearly firsthand access to a patient's condition. He or she can question the patient and see and hear their symptoms, almost as well as if they were present in the clinical setting. Via robotic interaction, doctors can decide with almost total confidence whether to keep a patient in their hometown or rush them to a major hospital for specialty acute care.

Beyond gee-whiz gizmos and upgrading care and services, Woods said, St. Joseph has restructured administratively



Eugene A. Woods, FACHE, Chief Executive Officer, Saint Joseph Health System

and saved serious dollars. Already, there have been more than \$1 million in supply chain savings, he said, and the anticipation is that there will be millions more in the coming years.

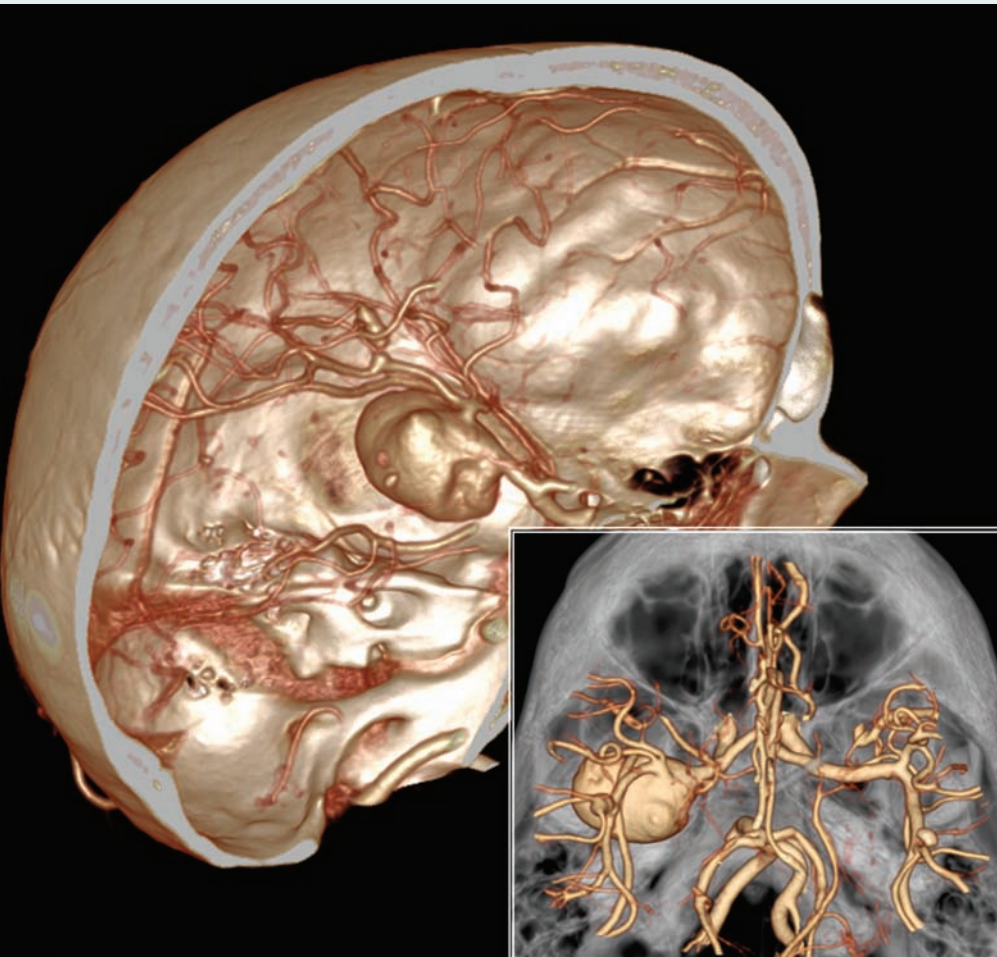


Saint Joseph Hospital, located on Harrodsburg Road, is Lexington's first hospital, having opened in 1877. In 2008, the 468-bed facility underwent an \$85 million renovation and expansion that included major updates and improvements to its nationally recognized Heart Institute.



Central Baptist's new medical plaza opened in 2008 and serves patients from Fayette and Jessamine counties as well as communities to the south of Lexington. The facility is located at 100 Providence Drive in the Brannon Crossing real estate development in Nicholasville, just south of Fayette County.

3DR LABORATORIES, LLC



CTA-Head volume rendered image reveals abnormally large middle cerebral artery aneurysm.

Outsourcing of 3D Medical Imaging Offers Access to Expertise in New Technology

3DR Laboratories, LLC is a Louisville-based healthcare services company that specializes in the creation of sophisticated 3D medical images. These images are used to better visualize anatomy and disease processes, leading to better diagnoses, lower costs and improved patient care. 3DR meets a striking need in the healthcare market by providing highly trained, competent SuperTechs with the training and talent to create the best images possible for hospitals and doctors, or anyone else needing access to advanced visualization. 3DR also provides consulting services, IT support/infrastructure and training, with a variety of platforms available to provide its customers maximum flexibility at minimum cost. Finally the medical imaging market has a true plug and play

outsourcing solution for providing advanced image processing services on a 24/7 basis.

What created the need for 3DR Laboratories? Founder, Dr. Robert Falk, a practicing radiologist in Louisville, first saw the need for centralization of 3D services in 2004. "There was a dramatic improvement in the performance and capability of CT scanners in the early 2000's. Speed of scanning increased dramatically and resolution improved as well. Because of these changes we have seen the number of images produced per patient skyrocket from less than 50 to many thousands. Dealing with all of these slices moved advanced image processing from a luxury to a necessity. At the same time, these advances in CT performance allowed the scanner to be used in ways

never thought possible before, replacing older, riskier and more expensive tests with CT."

Who Needs 3DR Laboratories?

Who, then, can benefit from outsourcing their 3D imaging needs to 3DR? The answer is simple – anyone wishing to provide their patients access to leading edge medicine in the most affordable way possible.

Hospitals

3D laboratory services in medical imaging are an absolute necessity for state-of-the-art hospitals. CT angiography is rapidly replacing catheter angiography for the evaluation of stroke, chest pain, aneurysms and peripheral vascular disease. Three dimensional imaging is also being used for presurgical planning in orthopedics, neurosurgery, oncology and plastic surgery to name just a few specialties. New applications of advanced image processing are being introduced constantly. Yet, reimbursement is inconsistent and relatively low compared with the technical fee for CT and MRI. Development of an in-house 3D laboratory requires substantial upfront capital and continuous operational costs for software upgrades, FTE's and 24/7 coverage. 3DR Laboratories' unique pricing structure bundles 3D lab services with flexible, scalable IT infrastructure into an affordable monthly subscription. This allows hospitals to either establish 3D services or grow their existing services with no upfront capital expenditures. With 3DR, hospitals are able to focus their valuable resources where they provide maximum return on investment – scanning patients.

Radiologists

The radiologist community has been quick to embrace CT angiography and other applications of advanced imaging. 3D software and workstation vendors claim that complete, clinically useful 3D renderings can be produced routinely with just a few clicks of the mouse with minimal interruption of workflow. Radiologists who actually try to post process their cases as part of a typical, hectic community practice quickly learn otherwise. Sitting in front of the computer to do advanced visualization

protocols can be an enjoyable new task when a 3D program is just getting started and there are only a few cases per day, but those few cases quickly grow to 10, 20 or more. As the volume of cases grows, so does the complexity of those cases. At 7 PM, after a long day, with three more carotid CTA's to process it's not so much fun anymore. While radiologists are the ideal 3D imagers, the reality is that the vast majority of 3D processing will be performed by SuperTechs in a protocol-driven fashion. The role of the radiologist is to review the protocolled images and only access the 3D software on an as-needed basis in order to answer specific questions. 3DR Laboratories provides the most complete standard protocols in the industry and is the only lab that provides customer-specific protocols. 3DR truly wants to be your laboratory.

Clinicians

More and more clinicians, from specialists to primary care, are discovering the benefits of 3D imaging and advanced visualization. The key, of course, is access. The best 3D images in the world are useless to a surgeon if he or she is unable to access them when needed. 3DR, with its sophisticated and robust thin client/server architecture, allows unlimited distribution of images without the need for sophisticated software and workstations. Any computer with access to simple broadband internet connectivity becomes a platform for advanced 3D image viewing and manipulation. Learning to use it is easy. As the treating physician, your patient's 3D studies can be viewed from the operating room, at home, the office, or even the beach!

Attorneys

It may come as a surprise, but trial attorneys who deal with medical images need 3DR Laboratories. Imaging has become a critical component of medicine, and therefore it stands to reason that imaging has also become a critical component of medical litigation. Healthcare and the practice of medicine are complicated. Getting a jury of non-medical people to understand complicated disease processes or injuries could make the difference between winning and losing a case. Typically, hours of depositions and stacks of x-rays are presented as evidence and exhibits. Imagine, as a jury member, the difference between trying to comprehend a series of thousand-slice CT scans as opposed to a few 3D renderings that can be expertly created directly from the original CT data. In the case of 3DR, one picture can literally be worth a thousand words.

You Can't Afford Not to Use Kentucky's Own 3DR Laboratories!

Bringing advanced visualization into your healthcare organization is not cheap. You've invested a lot by upgrading to a 16, 64 or 256-slice CT scanner. Now that you own the Corvette of CT scanners, how do you make sure that you're not driving it like a Ford Escort? Getting the most from your CT department requires an infrastructure of equipment, people and training. The table below illustrates that, even for a small CT department, the costs of doing your own 3D post-processing far outweigh the cost of outsourcing to 3DR.

The model below assumes a small to mid-sized CT department. Potential savings are larger with larger patient volumes. Assume one CT scanner and one 3D processing computer with two CT technologists working an eight hour day. Six cases per day need 3D processing at the workstation, requiring four hours of tech time.

	In-House 3D	3DR Laboratories
24/7 Coverage	No	Yes
Technologist fully trained	Minimum 9 months	Immediate
Upfront workstation cost	\$250,000	\$0
Annual license/upgrades	\$25,000	\$0
Tech 1's day	8 hours scanning	8 hours scanning
Tech 2's day	4 hours scanning 4 hours at 3D WS	8 hours scanning (3DR is your 3D tech)
CT Scans per day	28*	32* <i>More techs scanning = more scans per day</i>
CT revenue @ \$300 per scan	\$8400	\$9600
Call pay for 24/7 3D coverage per day	??	\$0
Cost of 3DR Laboratories' service	\$0	\$360 (6@60)
Net revenue per day	\$8400 less call pay	\$9240
Revenue per year (260 days)	\$2,159,000 (includes cost of license)	\$2,402,400

The 3DR difference—\$243,400 in additional yearly revenue

* Clinical studies show that one tech can scan a patient every 22 minutes while two techs can scan a patient every 14 minutes on a multislice CT scanner.

3DR Academy

The Volumetric Medical Imaging (VMI) program was developed at Jefferson Community and Technical College (JCTC) in 2005 to produce an employee pool for 3DR Laboratories. The demand for this curriculum is nationwide, however because few radiologic technologists possess the knowledge base or technical skills to be proficient 3D "super" techs. Now, 3DR Academy in partnership with JCTC offers the VMI curriculum online to students across the country. Students learn detailed cross-sectional anatomy, pathophysiology, and the intricacies of post-processing to create diagnostically useful images.

3DR Academy offers both flexibility and accessibility. RadTechs can enroll in the 4-credit courses comprising the VMI certificate or shortened modules that focus on a specific type of exam (e.g. Carotid Artery Post-processing). Each course or module will earn both college credit and continuing education units. The curriculum is offered in a self-paced format with multi-media content, including audio-video lectures. Broadband internet access allows students to login to the Louisville-based server to practice their skills on test cases as video tutorials walk them through the key steps.

For more information, go to 3dracademy.com.

CENTRAL BAPTIST HOSPITAL



The highly trained Emergency Department staff at Central Baptist Hospital works with local emergency medical services personnel to reduce the time to treatment during the critical early stages of a heart attack, when treatments are most effective.

Combining Technology and Teamwork to Heal Hearts

Central Baptist Hospital's focus on healing hearts started early. The hospital launched its first coronary care unit in 1967, performed its first cardiac catheterization procedure in 1980 and conducted its first open heart surgery in 1982.

"Patients know they can trust our highly qualified staff and the physicians who practice here, who are among the finest in their respective specialties," said Todd Jones, MT (ASCP), MHA, FABC, vice president of cardiovascular and surgical services.

The hospital has a cutting-edge cardiac facility featuring dedicated open-heart surgery suites, an open-heart ICU, five digital cardiac cath labs, three electrophysiology labs and 30 private rooms in the Cardiovascular Observation Unit.

Cardiac care at Central Baptist involves a history of firsts. The hospital was the first in the world to install and use the AXIOM Artis dFC Magnetic Navigations System, which allows physicians to navigate cardiac catheters and

guidewires with unprecedented accuracy and range of motion. Central Baptist also was the first hospital in Kentucky to install a 64-slice CT scanner, a non-invasive diagnostic tool that provides detailed images of the heart and arteries.



Central Baptist Hospital is the first accredited Chest Pain Center in Lexington, a designation granted by the Society of Chest Pain Centers signifying the hospital's leadership in cardiac care.

Another cardiac-related first occurred in 2005, when Central Baptist became the first hospital in Lexington to be designated an accredited Chest Pain Center by the Society of Chest Pain Centers. The hospital was granted reaccreditation in 2008, with the more prestigious "Chest Pain Center with Percutaneous Catheter Intervention" status, denoting that Central Baptist meets or exceeds benchmarks for rapidly diagnosing an acute heart attack, proceeding with a heart catheterization and intervening with appropriate treatment.

Another 2008 honor was the American College of Cardiology Foundation's National Cardiovascular Data Registry (NCDR) ACTION Register-Get With the Guidelines (GWTG) Silver Perform-

ance Achievement Award, its highest honor. Central Baptist was the only hospital in Kentucky to receive the award, which signifies the hospital has reached an aggressive goal of treating coronary artery disease patients with 85 percent compliance to core standard levels of care outlined by the American College of Cardiology/American Heart Association clinical guidelines and recommendations.

Leading Central Baptist's cardiac successes is a team of highly trained physicians who are regularly sought to educate their peers on the latest surgical techniques and use of new technology and devices. In recent years, the hospital has played host to physicians from such prestigious medical facilities as the Cleveland Clinic, Duke University Hospital and Florida Hospital who have come to learn the latest in electrophysiology procedures for treating heart rhythm disorders.

The hospital's Cardiac Rehabilitation program provides progressive exercise and education to individuals with heart disease. Patients are able to work out and take special classes under medical supervision in a state-of-the-art facilities specially designed with their needs in mind.

Central Baptist conducts groundbreaking cardiac research made possible through the Lexington Cardiac Research Foundation. The foundation allows physicians to conduct research studies and improve the treatment methodologies for cardiovascular disease in a community-based setting.



Thousands of Kentuckians depend on Central Baptist Hospital for their cardiac care, making it one of the busiest heart programs in the Commonwealth.



The Espree Open Bore MRI has a wider opening and a shorter length, which allows more than 60 percent of exams to be completed with the patient's head outside of the bore.

or those who tend to be claustrophobic may opt for the procedure at the Hamburg outpatient diagnostic center using the Espree Open Bore MRI.

Central Baptist was the first U.S. installation site for Siemens Healthcare's Ysio™, the newest generation digital radiography system with a wireless detector that handles like a cassette and can be moved from the table and positioned for difficult exposures on patients with restricted mobility.

"We are committed to being an innovator in the delivery of imaging services," said Evan Long, director of outpatient diagnostic services. "Imaging technology is continually evolving, and we are always evaluating new technology for its effectiveness."

Central Baptist Hospital is a Breast Imaging Center of Excellence designated by the American College of Radiology. Each breast imaging center offers all-digital screening, which provides better penetration of dense breast tissues that are not as well-visualized with conventional film mammography. Digital technology also allows the breast imaging team to manipulate images in order to see more subtle differences in breast tissue – a capability that isn't available with film mammography.

The staff interprets annual screening mammograms in a timely manner and often offers same-day results on diagnostic mammograms and ultrasounds. Specialized services offered that are often needed prior to surgery include ultrasound-guided biopsy, stereotactic breast biopsy, MRI-guided breast biopsy, breast MRIs, bone densitometry, ductography/galactography and wire localization procedures.

Outpatient Diagnostic Centers Offer Technologically Advanced Tests Nearby

Diagnostic tests and screenings have become mainstays for diagnosing and detecting disease, and their importance is often critical. Central Baptist Hospital believes CT scans, ultrasounds, mammograms and other vital procedures should be convenient, so the hospital has located its Outpatient Diagnostic Centers strategically throughout the Lexington area so that a needed test can always be obtained nearby.

Tests and screenings available range from the familiar X-rays, high-energy radiation used to diagnose disease by making pictures of the inside of the body, to the technologically advanced Positron Emission Tomography (PET) scans, which allow physicians to measure the body's abnormal molecular cell activity to detect cancer, brain disorders and heart disease.

Accredited by the American College of Radiology, CBH Outpatient Diagnostic Centers also offer ultrasound studies, which use high-frequency

sound waves to make photographs of different parts of the body. CT scans combine the use of X-rays with computer technology to produce three-dimensional photographs displaying organs, vessels, bones and tissues.

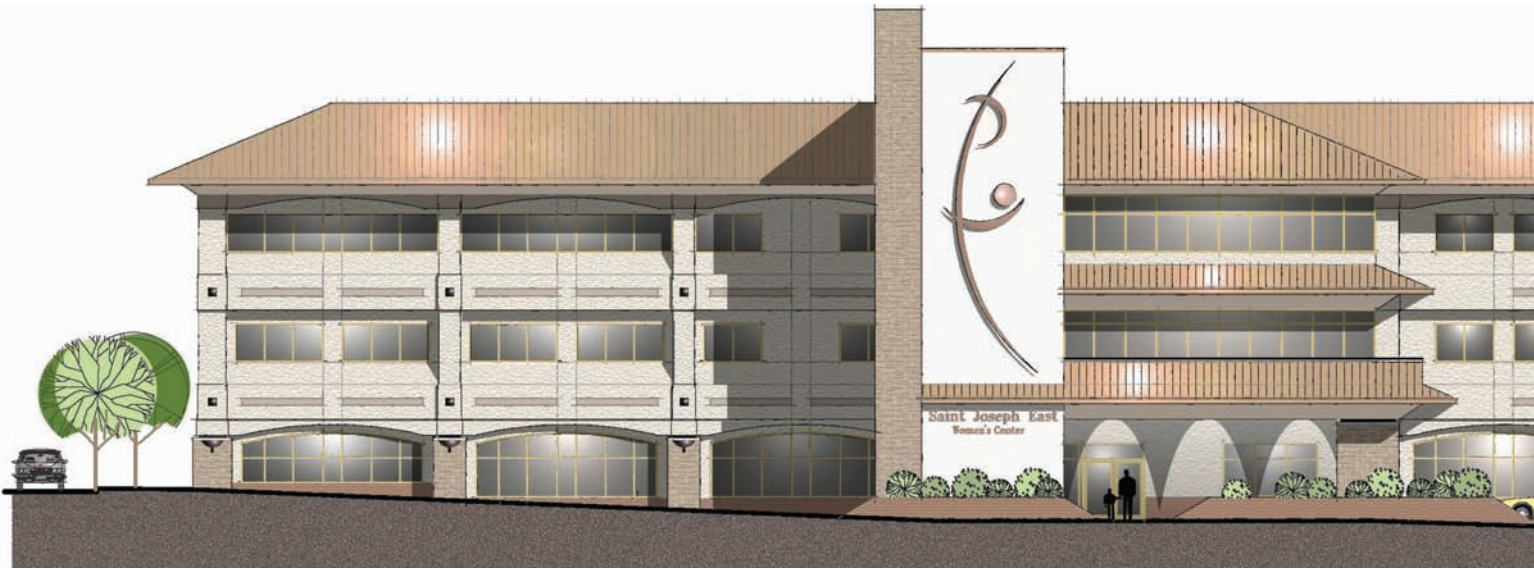
Magnetic resonance imaging (MRI) is a procedure in which a strong magnetic field and radio waves are utilized to allow physicians to explore the inner workings of the human body. Overweight patients

Outpatient Diagnostic Centers:

1. Palomar - 1055 Wellington Way, Suite 135
2. Brannon Crossing - 100 Providence Way, Suite 100, Nicholasville
3. Southland - 100 Southland Drive
4. Hospital Campus - 1740 Nicholasville Road
5. Hamburg - 1775 Alysbeba Way, Suite 140
6. Leestown - 1697 Peabody Way



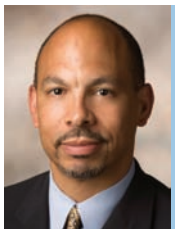
SAINT JOSEPH HEALTH SYSTEM



Saint Joseph Health System Delivers Quality Care Close to Home

Eight-facility system offers healthcare in urban, suburban and rural settings

When the Sisters of Charity of Nazareth arrived in Lexington in 1877, they established what would become the city's largest and most respected health care provider, Saint Joseph Hospital. Today, that hospital thrives as part of Saint Joseph Health System, a member of Catholic Health Initiatives and one of the nation's largest health care delivery systems.



Eugene A. Woods,
FACHE, Chief
Executive Officer,
Saint Joseph
Health System

Saint Joseph Health System was formed in 2008, when seven of the area's most trusted hospitals merged. The strength of this union allowed the system to invest in updates, upgrades, additional space, and new facilities, including the system's eighth site, Saint Joseph – Jessamine RJ Corman Ambulatory Care Center. In 2010 and 2011, Saint Joseph Health System will open

additional new state-of-the-art facilities, including replacement hospitals for Saint Joseph – London and Saint Joseph – Mount Sterling, and the Women's Hospital at Saint Joseph East.

Among the advantages of forming the system was to introduce technology that brings the most qualified expertise closer to home. Through this combination of tools and talent, physicians, specialists, and technical health care personnel have instant access to patient information, regardless of location.

For instance, through the system's InTouch Robot video monitor technology, patients with heart concerns can be seen and diagnosed anywhere in Saint Joseph's accredited chest pain network, then be treated locally or transported to another facility for more targeted care. System-wide, Saint Joseph records more than 300,000 outpatient visits each year and more than 35,000 surgical visits.

Beyond being the largest provider of care, Saint Joseph has garnered more recognition

than any other system for quality and patient satisfaction. Saint Joseph Health System also performs more heart surgeries than any other hospital in Kentucky. Nationally, its facilities have been recognized by Solucient and U.S. News and World Report for treatment in the areas of cardiology, orthopedics and stroke; listed among the nation's 100 Top Hospitals sixteen times; received patient safety and quality awards from the Kentucky Hospital Association; been noted by Catholic Health Initiatives for top performance in pneumonia care; and named among a list of Kentucky's top 25 best places to work.

While its titles and numbers speak to a highly modernized and refined organization, its legacy is one that is steeped in tradition. The people of Saint Joseph continue to carry out the faith-based health care ministry established by the founding Sisters through hospitals that have themselves become members of the community.

Saint Joseph Hospital

Since it opened in 1877, Saint Joseph Hospital has pioneered quality care in Lexington and beyond. Today, this 468-bed center is known for its outstanding cardiac care, treating more heart patients and performing more open-heart surgery

Saint Joseph Health System Kentucky Locations





The Women's Hospital at Saint Joseph East is slated to open in January 2010, and will be the first of its kind in the state.

ies than any other hospital in the state. Its comprehensive list of services also includes oncology, cancer care, general surgery, and surgeries for urology, gynecology and cardiology using the state-of-the-art da Vinci robotic surgical system.

Saint Joseph East

Located in the southeastern part of the city Saint Joseph East is trusted for services that include cardiology and bariatric surgery, ambulatory surgery and emergency care, and Kid Traxx pediatric emergency care. Saint Joseph East is a major contributor to the system's annual 3,400-plus births and is especially know for its services for women, including maternity and infant care and obstetrics and gynecology.

Saint Joseph – Berea

Serving its neighbors since 1898, Saint Joseph – Berea is a community hospital with big city medicine. In addition to round-the-clock emergency care, contributing to the system's annual 212,000 emergency room visits, Berea offers diagnostics in ultrasound, mammography and mobile MRI as well as acute care for general, thoracic and outpatient surgeries.

Saint Joseph – London

This 89-bed general, acute-care hospital provides a full range of medical, surgical and obstetrics services, including rehabilitation services, respiratory therapy and cardiovascular services, having recently been named

as one of the nation's 100 Top Hospitals for cardiovascular and overall care. London also offers care beyond the hospital walls through outpatient pediatrics, home health care and hospice.

Saint Joseph – Martin

Small in size, but big in caring, Saint Joseph – Martin is a 25-bed critical care access facility that offers inpatient and outpatient care, nuclear medicine and a level-three emergency department. The hospital also operates five rural health clinics throughout the region.

Saint Joseph – Mount Sterling

At Saint Joseph – Mount Sterling, care is delivered by a team of professionals, many of whom grew up in the community. The hospital's wide range of services exceed expectations and include minimally invasive surgeries, sleep services, the full range of rehabilitative therapies, specialty clinics and hospice.

Flaget Memorial Hospital

This new state-of-the-art hospital, its medical offices and off-site clinics keep care close to home for central K entuck-

ians with cardiac, oncology and rehabilitative services; centers for wound care, pain management and sleep disorders; and radiation therapy.

Saint Joseph – Jessamine RJ Corman Ambulatory Care Center

Saint Joseph – Jessamine was the first newly constructed, freestanding facility completed after the merger of the other seven properties in 2008. Here, patients have access to a 24-hour emergency department complete with diagnostic imaging that includes ultrasound, general X-rays, and computed tomography; laboratory services; and physician offices.

Saint Joseph Health System provides care regardless of a patient's ability to pay, a service that relies, in part, on the generosity of charitable giving through Saint Joseph Hospital Foundation Inc. As part of Catholic Health Initiatives, Saint Joseph Health System is devoted to maintaining patient dignity and a sense of social responsibility while building healthier communities within the state of Kentucky.



Saint Joseph – Jessamine RJ Cor man Ambulatory Care Center opened in January, and offers round the clock emergency care for the residents of Nicholasville and the surrounding communities.

Electronic Health Record Benefits Patients, Payors and Employers

Lexington Clinic, Kentucky's largest private physician practice, is a regional leader in using EHR to improve patient care

With the new administration's plans to renew a national focus on healthcare reform, the electronic health record (EHR) is once again in the spotlight. The conversion of the healthcare system's historically challenging paper records to electronic tools is so critical to successful reform that

the president's economic stimulus package assigns funds to incentivize the changeover. National studies have underlined the need to accelerate implementation – while the percentage of physicians planning to convert is growing quickly, the overall percentage of practicing physicians already utilizing

the tool remains small (about one in four medical practices, according to a recently published study from the Centers for Disease Control).

While these plans unfold in Washington, Kentucky's largest private physician practice group has been a leader in implementation of this important update to care delivery. Lexington Clinic, a multi-specialty group of more than 150 physicians serving Central and Eastern Kentucky, has already logged five years of experience using EHR to improve the way physicians work with their patients and each other.

"We made this change years ago without a government incentive because we knew it was the right thing for our patients," said Andrew H. Henderson, M.D., chief executive officer of Lexington Clinic. "We funded this technology for our practice and are very proud of being leaders in this effort."

Information flow is critical

"The flow of information is so critically important in patient care today," said Robert L. Bratton, M.D., chief medical officer of Lexington Clinic. "If you can control and improve that flow, that's where we can make a major difference in how we take care of patients."

The term "EHR" is increasingly familiar, but the statistics on utilization suggest many patients (outside of Lexington Clinic in this region) may have never seen the tool itself or experienced how it works. When a patient visits a Lexington Clinic physician, the patient will see the physician work much differently with the EHR than with the paper files of the past.

The experience works like this: When the physician walks into the patient room, he or she is carrying not the traditional clipboard, but a wireless, flat-screen electronic device about the size of the keyboard of a laptop computer. Touching the screen with the attached stylus, the physician can instantly see fundamental information that used to require endless paging



Robert Bratton, M.D., (left) chief medical officer of Lexington Clinic, confers with radiologist Timothy Mahloch, M.D.

(From left) Ronald Roberts, M.D., Craig Irwin, M.D., and Lisa Hall, M.D., partners at Lexington Clinic's Veterans Park internal medicine/pediatrics location, use EHR tablets in daily interaction with patients and other physicians.

through paper copies, such as the last date the patient was in the office, or the results of tests ordered to help the physician explore the patient's problem. When the physician prescribes medication, another touch of the stylus sends the script directly to the pharmacy.

Most importantly, when a Lexington Clinic patient moves through the Clinic for treatment – for example, from a primary-care physician, to lab tests and/or imaging, to a specialist, to surgery for a procedure – wherever that patient goes, the treatment and testing information contained in the EHR flows with the patient and is instantly available with the touch of a stylus to every provider involved in that patient's care.

The shared chart

"The shared chart provides them immediate access to all the information they need," said Jana Fredlock, who oversees the EHR in her role as senior director of Lexington Clinic operations. "They can see the medical thought process of their peers."



The benefits to the patient from the increased accuracy and efficiency of the EHR translate into major benefits for payors and the employers who share the costs of the patient's medical coverage.

EHR reduces duplicated testing

"It helps us to reduce duplicative testing, when the physicians can easily touch real-time information gathered from the patient at all points of contact," said Eric Riley, chief administrative officer for Lexington Clinic. "The EHR also gives us and our payor partners the ability to extract patient data with much greater speed and efficiency."

With reliable data much easier to reach, organizations like Lexington Clinic can move toward more accurate monitoring of recognized standards of care for certain types of patients. Examples include tracking foot and eye care for diabetics. "The evolution of this tool and its use will allow us to position ourselves for disease management pathways," Riley said.

Additional applications that will make it easier for the patient to interface with physicians are not far away. Building on the EHR platform, Lexington Clinic will move toward installation of an online patient portal through which patients can e-mail physicians, request prescription refills, view lab results and pay bills – all in a secure scenario.

The EHR and related tools are vital as Lexington Clinic continues to recruit

new, young physicians from the nation's top medical education institutions, said Dr. Bratton.

"New physicians are trained on the EHR and are accustomed to having that information at their fingertips," he said. "That communication with their colleagues and the relationships that grow from that communication are very important to them."

Lexington Clinic's EHR is a critical building block in a model of care based on quality, safety, service and teamwork, Bratton said. "Our model is a multi-specialty, team approach to patient care. Our EHR is one of the things that make that possible."



Lexington Clinic's EHR is displayed on a wireless touch-screen tablet used by physicians during patient appointments and for maintaining all patient information, including monitoring report results.

Lexington Clinic by the Numbers

152 physicians

37 specialties

21 locations throughout
central Kentucky

1,100 full-time employees

88 years in business

500,000 patient visits annually

UK HEALTHCARE



UK HealthCare Making Strides Toward Top 20 Status

Change is happening at UK HealthCare. The most apparent evidence of this change, of course, is the new UK Albert B. Chandler Hospital, which seems to rise a little higher on South Limestone with every passing day.

When it opens in 2011, the new “hospital of the future” will be both the leading patient-centered medical center in Kentucky and a landmark architectural statement in the heart of Lexington. This new facility will be a world-class hospital – uniquely Kentucky. In every way it will match or exceed the technical advancements in medicine available around the world, yet it will have a character and warmth that make it welcoming and familiar to the people of Kentucky. Take a virtual tour of the new facility (ukhealthcare.uky.edu/renewal/virtualtour.htm) or visit the Webcam to see the construction’s progress day by day (ukhealthcare.uky.edu/renewal/cam.htm).

The new hospital is an exciting – and integral – part of the change going on here, but it is by no means the whole story. In truth, the change at UK HealthCare is happening at all levels of the organization, all part of an ongoing commitment to transform health care for the

people of Kentucky and become no less than one of the very best academic medical centers in the country.

The faculty and staff of UK HealthCare are working to become one of the Top 20 academic medical centers in the United States, providing the best possible medical care to the people of Kentucky and the surrounding region. No Kentuckian should ever have to leave the state to seek qualified medical care, no matter how complex their condition.

UK Good Samaritan Hospital

Good Samaritan Hospital, a longtime Lexington hospital located at 310 S. Limestone, was added to the UK HealthCare system in July 2007. Prior to the addition of Good Samaritan, Chandler Hospital was at full capacity with no more ability to expand. The much-needed space promised by the new patient-care facility will not be available until 2010 (Emergency Department) and 2011 (intensive care and acute care rooms). With the addition of Good Samaritan, UK HealthCare was able to grow its patient volume in 2008 by 20 percent.

In its first year as part of the UK HealthCare system, UK Good Samaritan went from utilizing about 50 percent of

The new UK Albert B. Chandler Hospital now under construction on South Limestone in Lexington will be both a state-of-the-art medical facility and a stunning architectural landmark.

its capacity to utilizing greater than 75 percent. By the end of the year, half of the surgeries at Good Samaritan were being performed by UK surgeons. To date, nearly \$16 million has been spent to renovate patient care areas and to add or replace diagnostic and other equipment. Everyone involved is pleased. And thanks to careful planning, there is still room to grow at Good Samaritan.

Unprecedented growth

UK HealthCare has grown from 19,000 discharges just five years ago to nearly 33,000 discharges in FY2008, a 70 percent increase in clinical activity that no other health care organization in the United States has been able to match.

Thanks to these gains, UK HealthCare has moved up from the 25th percentile in size of academic medical centers to approaching the 75th percentile. This enterprise now has the clinical breadth, depth and scope to legitimize its effort to become a Top 20 public research institution.

This high rate of growth has made it possible to plan and build the facilities necessary to provide the kind of advanced subspecialty care an academic medical center can and must provide. This growth has also given UK HealthCare financial security, which is not found within all health systems around the country.



Good Samaritan Hospital became part of UK HealthCare in July 2007, enabling UK HealthCare to grow its patient volume by 20 percent, with more room to grow.

Bringing in the best

2008 was another banner year for recruiting outstanding physicians to the UK HealthCare faculty. Faculty retention and recruitment are key to UK HealthCare becoming the region's preferred provider of advanced specialty care. The UK College of Medicine now has 880 faculty – a 15 percent increase since 2004.

Pediatric cardiovascular surgeon Dr. Mark Plunkett is one example of the success achieved at physician recruitment. Since arriving from UCLA, he has transformed pediatric heart surgery at UK. Because of him, UK HealthCare is becoming a national pediatric heart center, providing leading-edge procedures and operations for the children of Kentucky and beyond.

Bringing respected pediatric subspecialists to UK has eased the minds of community pediatricians who were concerned about whether their young patients could be seen in a timely manner. Forging new relationships with referring pediatricians has led to tremendous growth in the numbers of children coming to Kentucky Children's Hospital (an increase of 1,800 between 2007 and 2008). Previously, many of these children would have been sent many miles away for their care, causing great hardship – or at the very least great inconvenience – for their families.

Building bridges

When people need medical care, they generally want to stay close to home for as long as they can. It makes sense for their community hospitals and physicians to provide needed services to the greatest extent possible. But when specialized care is needed, UK HealthCare has taken the steps needed



Mark Plunkett, MD, chief of cardiothoracic surgery, was recruited from UCLA to transform pediatric heart surgery at UK into a nationally recognized program. Plunkett has performed more than 100 surgeries since coming to Kentucky.

Patient rooms in the new hospital are designed to allow diagnostic and treatment equipment to be brought to the bedside. Every room will be private, and each will have its own private bath, widescreen television, ample natural light and space for a family member to stay overnight.



to ensure easy and fluid access to all that its academic medical center has to offer.

UK HealthCare has continued to build strong relationships with regional rural health providers based on mutual respect and a clear understanding of the mutual benefits. UK specialists see patients at several community hospitals that are a part of its UK-affiliated providers, including Ephraim McDowell Regional Medical Center (Danville), Harrison Memorial Hospital (Cynthiana), Rockcastle Hospital (Mt. Vernon) and St. Claire Regional Medical Center (Morehead). The Markey Cancer Center, Gill Heart Institute, Kentucky Children's Hospital and the UK Transplant Center have each established formal networks with local hospitals and providers.

More than 50 percent of UK HealthCare patients come from more than 30 miles away. It is very much a growing referral center for the people of Kentucky.

A culture of service

With such unprecedented growth, it would be easy to lose sight of the personal side of health care. But the guiding belief at UK HealthCare is that medicine is, above all, a human endeavor. That's why we have an entire department dedicated to customer service, working alongside clinicians, managers and administrators to help patients and their loved ones navigate a complex and sometimes confusing medical system.

Customer service representatives are there to find answers to questions and work to ensure that expectations of quality and care are met – or exceeded.

These folks don't work alone, however. At UK HealthCare, customer service – respectful, personalized patient care – is everyone's responsibility. A large-scale initiative begun this past year aims to educate and empower UK HealthCare's 10,000 employees to do what it takes to give its patients the exceptional care they deserve.

The goal is to be the academic medical center with a warm heart, blending medical advances with compassion and the warmth of the human touch.

Recognized for quality

UK HealthCare's ongoing focus on efficiency, quality, patient safety and service has recently been recognized by several national organizations. UK Albert B. Chandler Hospital was among Thomson Reuters 100 Top Hospitals™, receiving for the fifth time its National Benchmarks for Success award. It was the only major academic medical center in Kentucky to be ranked in the top 100.

The most recent list of Best Doctors in America® includes 106 UK HealthCare physicians – more than any other hospital in Kentucky.

Twenty-one UK HealthCare physicians are named in the latest list of America's Top Doctors®. Published by Castle Connolly Medical Ltd., the eighth edition of America's Top Doctors recognizes specialists who are considered among the best in both patient care and research. More than 250,000 doctors nominated their top colleagues, including those to whom they refer their own patients. Fewer than 5 percent of all doctors in the United States make the list.

It doesn't stop here

The changing fabric of UK HealthCare is improving quality and access to advanced specialty care for Kentuckians. No longer a small academic medical center, UK has become a large tertiary referral center for patients needing the most advanced care medicine has to offer. Patients with complex conditions can have confidence that the best medicine will be available close to home – right here in Kentucky.

HE TREATS THE PATIENT.



WE TREAT THE HOSPITAL.

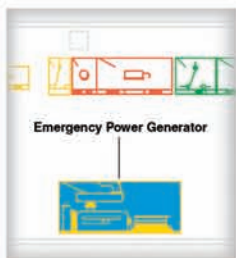


FacilityONE improved emergency preparedness at Jewish Hospital in Louisville while saving them \$1.2 million in annual operating costs.

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Exterior elevation rendering of the College of Pharmacy building that was designed by EOP Architecture of Lexington

The World's Largest Pharmacy Education Building

UK's College of Pharmacy is ranked fifth in a *U.S. News and World Report* pharmacy program survey

Facts & Figures about the UK College of Pharmacy

- The new facility opening in 2009-2010 will be the largest pharmacy education building in the world.
- UK Pharmacy students are #1 in the nation in first-time pass rates on the national licensing exam.
- The UK College of Pharmacy is ranked fifth nationally in the *U.S. News & World Report's* survey of pharmacy programs.
- UK's pharmacy research faculty ranks 4th out of 354 institutions in scholarly activity.
- UK PharmacistCARE received the American Society of Health-System Pharmacist's 2008 Best Practice Award.
- UKCOP has educational ties and programs with 10 international countries.
- UK pharmacy students come from more than 95 countries in Kentucky.

The University of Kentucky's new College of Pharmacy building will be the first facility completed as part of UK's academic medical campus of the future. The College of Pharmacy's building is the initial component of a 20-year, \$2.5 billion expansion project on the south side of the UK campus. Students, faculty and staff will move into the partially completed building starting in December 2009.

The 286,000 s.f. facility will be the largest academic building in Kentucky and among the largest in the nation. With five stories and a basement, the building will include facilities for educating pharmacists in a patient-centered curriculum and preparing them for the health care systems of today and tomorrow.

The building also will include innovative and much-needed space for UK's internationally recognized researchers who are making advances leading to drug discoveries, drug design and improved delivery systems. The research impacts potential treatments for diseases such as cancer, diabetes, alcoholism and Alzheimer's disease.

The \$155 million facility will include a five-story atrium; two 235-seat auditoriums; 110- and 54-seat classrooms; a teaching laboratory with compounding laboratory and patient assessment rooms; and 19 small

group/study rooms. All are equipped with the latest in wireless technology.

In addition, research facilities have been created to foster collaboration among researchers in chemistry, biology and pharmaceutical laboratory areas. The new building will have three times the space of the college's current building on Rose Street and more than six times the space in the college's first UK home in the Slone Building.



Kenneth B. Roberts, PhD, MBA, is dean of UK's College of Pharmacy

The UK College of Pharmacy is ranked 5th among all pharmacy programs in the U.S. and has been ranked among the top 10 for more than two decades.

More than 5,500 pharmacy school alumni serve in a wide range of positions from community and hospital pharmacists across the commonwealth to academic leaders and deans at many other pharmacy schools. Many graduates also serve as pharmaceutical industry leaders in positions throughout the United States and around the world.



Rendering of interior finishes for the College of Pharmacy building

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Diet Time

Pick an eating plan with staying power to aid weight loss

IT doesn't take long to figure out what's happened when the seams split on your favorite skirt, your shirt buttons pop, or those dress snaps just won't stay, well, snapped.

All those super-sized orders at the drive-through have made you super sized. You need a diet.

Finding one that's right for you can be a challenge, especially if you're look-

ing to quickly shed the pounds you've packed on over a long period of time. You can do it yourself by ditching rich desserts, passing on the potatoes and limiting lunch to a couple of carrot sticks and a scoop of cottage cheese.

But if you're like most people, you'll try the latest fad diet. It's usually the one that promises the quickest results. You may lose a couple of pounds immediately

but chances are you gain it all back — and then some.

"All diets work in the short term, because each one has a trick for helping you cut calories whether you're actually counting them or not," explained Colleen Pierre, a registered dietitian, licensed nutritionist and an adjunct instructor of aging, nutrition and fitness in Johns Hopkins University's certificate on aging program who works in private practice in Baltimore. "Keeping the weight off over the long haul is the tricky part."

Pierre recommends choosing a diet with staying power. "A plan that includes all food groups, even small treats, keeps you well-nourished while you dispose of excess body fat," she said. "Changes made gradually over time are most likely to become permanent and help you keep the weight off."

Choosing a diet can be daunting. There are hundreds of plans — some are good, some are bad. Advertising and promotional campaigns on television and in print, as well as celebrity endorsements, can make even the worst diet an instant hit with the public. Others, like the now popular Mediterranean diet, may take years to catch on.

The Mediterranean diet drew scant interest in 1945 when Ancel Keys, an American doctor stationed in Italy, advanced the idea that a diet rich in olive oil, fresh fruits and vegetables could translate into lower cholesterol levels and better health. In 2001, well-known Harvard epidemiologist Walter Willett came to the same conclusion in "Eat, Drink and Be Healthy," his best-selling book.

Today the Mediterranean diet, which goes easy on meat and urges the daily consumption of fruits, fish, salads, bread, pasta, beans, cheese and yogurt, is the basis of several other popular plans including the Sonoma Diet, the Omega Diet and the Miami Mediterranean Diet.

Some diet programs have staying power. Weight Watchers has had a following for more than 45 years. Each week, approximately 1.5 million members attend over 50,000 Weight Watchers meetings around the world. The Jenny Craig Weight Loss Program draws 150,000 a week and five million clients worldwide since 1983. Both stress portion control and support to keep dieters on track.

The biggest weight loss website is eDiets.com, whose 1.3 million paid members can choose from nearly two-dozen diets including its own calorie-controlled plan and well-known plans like Atkins, Mediterranean, Slim-Fast Optima and Glycemic Impact, or special need diets that are wheat-free, low-fat, low sodium, vegetarian, high fiber, hypoglycemic, lactose free and heart smart.

eDiets members have access to nutritionists and fitness specialists, can participate in online support boards, get recipes and diet tools, track their weight loss history and, like a growing number of other diet operations, have portioned-controlled meals and snacks delivered right to the door for an extra fee.

Even with close monitoring and support, many dieters still fail to lose those extra pounds. David Grotto, president and founder of Elmhurst, Ill.-headquartered

Nutrition Housecall and nutrition advisor to Fitness Magazine, said dieters do themselves in by setting unrealistic goals such as putting an "end date" on their diet.

Focusing on deprivation and ignoring the details of when, what and how much to eat doom dieters along with failing to exercise, not getting at least seven to eight hours of sleep and not keeping records of what they've consumed. "Every morsel needs to be accounted for if you are to ever make sense of the scale!"



Meet Riley Speck, a 4 year old heart recipient, racing for the gold at the 2008 US Transplant Games



Kentucky

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or next time you renew your driver's license.
You can help up to fifty individuals!**

KODA
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Get Away from Problems and Back to Relaxation



If you find yourself barking at the kids, snapping at coworkers, unable to focus, forgetting things easily or even driving too fast, you probably need time to relax. However, if you're waiting for your yearly vacation to unwind, you're waiting too long.

It's far more effective to recharge as you go, according to psychologist Suzanne Zoglio, author of "Recharge in Minutes: The Quick-Lift Way to Less Stress, More Success, and Renewed Energy!"

Using simple relaxation techniques, you can restore your focus, confidence and energy in less time than it takes to

run out for that mid-morning latte. The key is to capture the spirit of that yearly vacation each and every day.

"Stress is an everyday occurrence. You have to manage it or it manages you," Zoglio said. "The best way to recharge is in short bursts every few hours, every day. That way, your body has time to re-center itself. If you were to take 10 to 20 breaks every day you'd never become over stressed."

Take time to manage your stress, unwinding and refueling as you go, and you reduce your risk of stress-related medical problems.

"Stress causes real symptoms," said David Clarke, clinical assistant professor of medicine with Oregon Health Sciences

"Stress that is strong enough or goes on for too long is capable of causing physical symptoms that can be just as severe as those of any disease," Clarke said.

We generally associate high blood pressure, acid reflux, peptic ulcers and a rapid pulse with high levels of stress, but stress can manifest itself in a myriad of ways and affect virtually any part of the body, Clarke said.

Changes in your eating habits, sleep schedule or energy level can all be signs that you're overstressed. Headaches, muscle stiffness, difficulty breathing and pain in the chest, abdomen, pelvis or back are also common.

Other physical symptoms include nausea, vomiting, diarrhea and constipation, as well as dizziness, ringing in the ears, numbness and tingling in the hands and feet, changes in the voice, a lump in the throat and itching skin.

If left unchecked, chronic uninterrupted stress can increase the risk of heart disease, stroke, diabetes, arthritis and even the common cold, according to Zoglio. That's why quick, routine breaks that help you unwind and refocus are so important.

"While the stress response – increased heart rate, shallow breathing, production of stress hormones, etc. – is an automatic response, we can reverse that response and any negative effects by taking quick refueling breaks regularly and at the first onset of stress," Zoglio said.

Spend just 10 minutes a day "playing," and by the end of the year you will have "vacationed" a total of 61 hours – that's more than a full workweek. Zoglio suggests the following:

Vacations are a time of reflection, so make time to acknowledge the good things in life. Review all of your accomplishments for the day or make a list of five things you're grateful for. It's a sure-fire mood booster.

Vacations are a time to catch up on sleep, permit yourself to take naps. Find a quiet spot for ten minutes of shut-eye. Practice deep breathing and let your mind go blank. Even if you don't fall asleep, you'll still feel refreshed and refocused.

100,000 People Need Transplants

Help by donating a life-enhancing or life-saving gift

Kentuckians can now make their wishes known about organ donation by registering on the Kentucky Organ Donor Registry. It is as simple as logging on to donatelife.org and completing the registration form. Individuals may also sign up when obtaining or renewing their driver's license at their local circuit court clerks' office, where they will be encouraged to "Say Yes!" to joining the Registry.

With over 100,000 individuals on the national waiting list for a life-saving organ transplant, it is crucial that people are made aware of the need for organ donation.

Over 78,000 endure dialysis as they await a kidney transplant, while others on the list are hoping to receive a heart, lung, liver or pancreas transplant. When individuals are listed for a transplant, all other means to treat their end stage disease has been tried, and transplantation is the only mode of treatment that will enable them to continue living.

State donor registries play an essential role in the donation process by enabling individuals to make a decision that is similar to an advanced directive. In this case, donor designations authorize donation to proceed, due to Kentucky's First Person Consent law.



"By joining the registry, individuals can potentially help those waiting for life-saving organ transplants and life-enhancing cornea and tissue transplants," said Jenny Miller Jones, director of education for the Kentucky Organ Donor Affiliates (KODA).

Numerous entities across the commonwealth have been involved with promoting organ donor awareness and the donor registry through the Workplace Partnership for Life. Hospitals, businesses, universities and others have

The Kentucky Organ Donor Registry conducts donor registration drives at events around the state. Donors can also obtain information on how to donate life at kyorgandonor.com.

partnered with KODA by hosting the Kentucky Donor Memorial Quilt display and allowing employees time to sign the registry. Some have run web banners about the importance of donation and supplied a link to the donor registry permanently on their in-house website.

Others have featured stories of those who have received or given the "Gift of Life." Several college campuses have established "Walks for Awareness" and friendly competitions for Registry sign-ups.

For more information about the Kentucky Organ Donor Registry or the Workplace Partnership for Life, contact KODA at (800) 525-3456 or kyorgandonor.org.



Becoming an organ donor is a simple process that can easily be completed by joining the registry.

KICKSTART for Health

Chuck Norris' passion is getting kids into the martial arts

It seems like health consciousness is everywhere. From the latest fad diet to the newest gym equipment, it seems like we can never get enough of trying to lose those stubborn pounds that we accumulate throughout the year.

However, we often overlook those who need health guidance most — our children. They are the ones facing some of the greatest obstacles and the most skyrocketing rates of health-related prob-

lems because of their lack of exercise and consumptive practices. The health chapter not only gives eight pillars of staying fit, but in it for the first time I discuss my own family's weekly nutritional and exercise plan.

It's easy to criticize the inadequacies of young people. It's far more difficult to invest in kids, but much more rewarding. Continuing to give back to society and build up our youth are two of the reasons

cal book but a cultural manifesto on eight major problems in our society. The health chapter not only gives eight pillars of staying fit, but in it for the first time I discuss my own family's weekly nutritional and exercise plan.

dren develop a strong sense of self-awareness and inner strength, they are able to resist negative peer pressure that might involve taking drugs, drinking alcohol or joining gangs.

In addition, martial arts training provides them with the core values and philosophies associated with leading a productive and healthy life: Things like discipline, hard work and respect for other people. One of the greatest byproducts of the KICKSTART program, however, is not only how it builds self-esteem and discipline in our youth, but also how it helps them get in shape.

John Kurek, a great veteran leader in the program, explained its health benefits: "KICKSTART provides a safe atmosphere with a controlled structured class, in which even kids who would not normally physically excel can excel. We are able to reach more numbers of students and get them in shape instead of riding the bench in gym class. Another thing is, with the belt ranking system, KICKSTART provides challenges for each student to excel, and with each belt a student becomes more flexible, stronger and faster. Not to mention it is a requirement for our instructors to be teaching value lessons every class, and a big part of the value lessons are eating habits and living a healthy life."

That is what KICKSTART is all about: To give every child a chance for a productive life in which they can make healthy decisions and achieve their goals and dreams. Someday, it is our vision to have this program in every middle school in America. Our goal is to see the 7,300 students we have in 41 schools in Texas multiply into millions of students throughout our country. To date we have graduated 60,000 children in Texas. My wife Gena and I consider this program our life's mission.

I am often given recognition for the way KICKSTART helps young people. But the real heroes of the program and these younger people's lives are the instructors. They are my heroes too, because they are the ones investing their lives into the lives of young people every day. The kids they are teaching in the program score higher academically, and almost 100 percent of them graduate.

I'm still amazed when God uses my life to influence someone else in a special way. I've made plenty of mistakes in my life, and I sure don't claim to know all the answers. I am convinced, however, of the force of one.

As Edward Everett Hale put it, "I am only one, but I am one. I can't do everything, but I can do something. The something I ought to do, I can do. And by the grace of God, I will." And the proof of that is KICKSTART.

According to the World Health Organization and the Centers for Disease Control and Prevention, childhood and teen obesity in the U.S. has tripled over the last 30 years. They also report one-third of adults are now overweight, with another third being obese. According to their data, those numbers have "increased sharply for both adults and children" since the 1970s.

Helping young and old overcome apathy and master their health is why I included the chapter, "Fit for the Fight," in my new New York Times best-seller, "Black Belt Patriotism: How to Reawaken America" (\$27, Regnery Publishing), which is not a politi-

I created KICKSTART (kick-start.org), which is a martial arts program for at-risk students taught in public middle schools in lieu of physical education.

President George H. W. Bush helped me start it in 1992. I also could not have started this program if I did not have my martial arts ability and my celebrity to initiate it. I believe God has allowed me to become successful in the martial arts and successful as an actor, and one of the primary reasons He did so was to start this program.



Sweet Dreams

Turning off technology might be the solution for sleep

Want to get more sleep? Tune out the technology. That's right — turn off your smart phone, power down the computer and skip the sensationalist news programs. Technology is one of the biggest barriers to a full night's rest.

The bright lights inhibit melatonin secretion, which tells your body that it's time to sleep. Late-night activities that actively engage the mind, like checking e-mail, playing video games, text messaging and watching television, also make it difficult to relax and transition into sleep mode. Plus, it's easy to lose track of time and stay up later than you intended.

"Anthropologists tell us that 5,000 years ago, the average night sleep was 11-12 hours a night. When the sun went down, it was dark, boring and dangerous outside, so people went to bed," said Jacob Teitelbaum, medical director of the national Fibromyalgia and Fatigue Centers, Inc., and author of "From Fatigued to Fantastic!"

"The use of candles initially shortened our sleep time. Then light bulbs were developed, followed by radio, TV and computers. We are now down to an average of 6 1/2 to 7 hours of sleep a night, and this is simply not adequate to allow proper tissue repair," he said.

They don't call it "beauty rest" for nothing. Deep sleep stimulates the "fountain of youth" growth hormones and regulates appetite hormones, leaving you thinner and younger looking.

Just one or two nights of poor sleep can cause aches and fatigue and hinder concentration, learning and memory. Long-term sleep deprivation has been linked to an increased risk of heart problems, diabetes, obesity and psychiatric difficulties like depression and substance abuse. Poor sleep is also a major trigger for chronic fatigue syndrome and fibromyalgia, Teitelbaum said.

"Sleep is important for a number of things, and we're still learning. It helps with areas such as brain development, consolidation of memories and enhancement of learning," said Shelby Freedman Harris, a top behavioral therapist with the Sleep-Wake Disorders Center at Montefiore Medical Center in New York City.

A good night's sleep starts with a proper winding down period. Allow at least one hour of relaxation time before bed to give your body a chance to calm down and let your mind drift from the worries of the day.

"Winding down is an important part of sleep hygiene," Harris said. "Creating a buffer period — or a protected period of time between a very stimulating or busy day and bedtime — is helpful to calm down the mind and body, to relax and not bring the daytime to-dos and worries to bed with you. It starts signaling to your body that it is time to go to sleep."

Dim the lights, turn off the cell phone, power down the computer and immerse yourself in a calm, relaxing activity. Read a book, practice deep breathing and relaxation exercises or take up a tranquil hobby like knitting or crochet.

If you must have the television on, skip the evening news, prime time dramas and horror movies that get your adrenaline flowing and make it harder to fall asleep. Opt for a light-hearted comedy or educational documentary instead.

Harris offers a few additional tips to ensure you fall asleep easily, stay asleep longer and wake refreshed and rejuvenated:

- Set a routine, and be consistent. Establish a regular bedtime and waking time, and stick to it — seven days a week.
- Skip the sleep-disrupting stimulants. Avoid nicotine, alcohol and excessive liquid intake within three hours of bedtime. Limit caffeine to the morning hours. Even a small cup of coffee or a can of soda at lunch can interfere with your body's natural sleep schedule.
- Exercise regularly, but not before bed. Regular physical activity promotes deep sleep, but exercise in the early

evening to give your body time to unwind following the stimulating rush of endorphins.

- Keep an eye on comfort. Make sure your bedroom is someplace you want to be. The room should be dark, comfortable and free from noise. Indulge in a decent mattress, plush pillows and nice bed linens, and keep the space clean and clutter-free.

- Don't let the day's worries keep you up at night. Make sure your work and household chores are complete before winding down for the evening. Make a to-do list for the next day then set it aside until morning. That hour or so before bed should be spent relaxing, not fussing over all the things you plan to accomplish tomorrow.

- If you can't fall asleep, don't force it. If you are still lying in bed wide awake within 20 minutes of your bedtime, get up, leave the bedroom and do something relaxing. Go back to bed only when you feel sleepy.



Walk On

Get up and start moving by beginning this lifelong exercise

WALKING, the ability to propel oneself from one place to another, has had all the makings of a lifelong exercise program since man first stood up on two legs. The benefits – both psychologically and physically – are plentiful.

“Just about anybody can walk,” said Carla Sottovia, senior personal trainer at the Cooper Fitness Center, a 3,500-member high-end health club on the campus of the Cooper Aerobics Center in Dallas. As exercise programs go, “walking is less injurious than running, increases cardiovascular fitness, releases hormones that improve your mood and can be pursued throughout life,” she said.

If that isn’t enough to get you off the couch, walking requires no expensive equipment and no membership dues. You don’t need a partner or perplexing instructions, you’re not tied to a treadmill and you can walk anywhere, anytime and in any season.

Sottovia, who has competed in more than 50 triathlons, agreed with other exercise physiologists that active walking can also be a stress reducer, giving you time to think good thoughts or sort out problems. You can also ponder, pray, plan your day or just enjoy the outdoors.

But how do you begin to forge a lifelong good health habit?

As a rule of thumb, if you’ve been very inactive and have not had a physical in a year, get a checkup before beginning a walking program, Sottovia said.

“When starting out, sedentary individuals should walk three times a week, 30 minutes each. If 30 minutes is too exhausting, break it up into two 15-minute walks or even three 10-minute segments. Then increase the time a little each week.”

During this period, determine your resting heart rate. As you progress, this will figure into a formula used to show improvement in your heart at rest as well as find out the intensity of your workout.

Intensity is not the objective in the beginning, however. “Early on, the single most important element is consistency,”

she said.

Stick to it. Establishing a walking habit may seem tedious and uncomfortable initially. You may be tempted to skip a session or fudge on the time or distance you walk. Just do it until walking becomes as important to you as brushing your teeth.

“The first month is critical,” she said. “Make it up to six months and the chance of having a lifelong habit increases considerably.”

As an interim goal, strive for a 20-minute mile. Determine a pleasant one-mile route. Wear a watch and work toward walking the route in 20 minutes. Then, when comfortable, work up to a 15-minute mile, a moderate intensity workout.

“When you start to get intensity up, you can calculate your resting heart rate again as well as your training heart rate,” Sottovia said. Use the Karvonen Formula, a mathematical formula which helps determine your heart rate target area, to monitor your progress quickly and easily.

Your ultimate objective is 45 to 60 minutes at moderate intensity most days of the week. Warm up by starting at a slower pace and cool down by slowing for five minutes at the end of the walk.

When you pick up the pace to moderate intensity you accrue a host of physiological benefits.

“You enhance the cardiovascular system and your heart’s endurance,” she said. “You can push harder, longer and faster. There’s a decrease in your resting heart rate. Blood pressure issues might be helped. Your metabolic rate increases and you use calories more efficiently.”

At this stage it’s likely a habit has been formed. “Just do it” is replaced with a sense of pleasure and wellbeing when you walk.

“It’s not hard to get hooked on walk-



ing,” said Charlie Cook, who for 28 years has been director and guide of Wild Earth Adventures, a hiking club in New York State that offers guided hiking and walking trips year round. “Once it’s a routine in your life, you don’t feel good without it.”

Offering one-day jaunts most weekends, Wild Earth Adventures is one of hundreds of such groups in the United States. “There are clubs in all 50 states,” said Cook. “Go to Google to access them.”

Cook, author of “Awakening to Nature: Renewing Your Life by Connecting with the Natural World” also reinforces the fact that walking can be a lifelong activity.

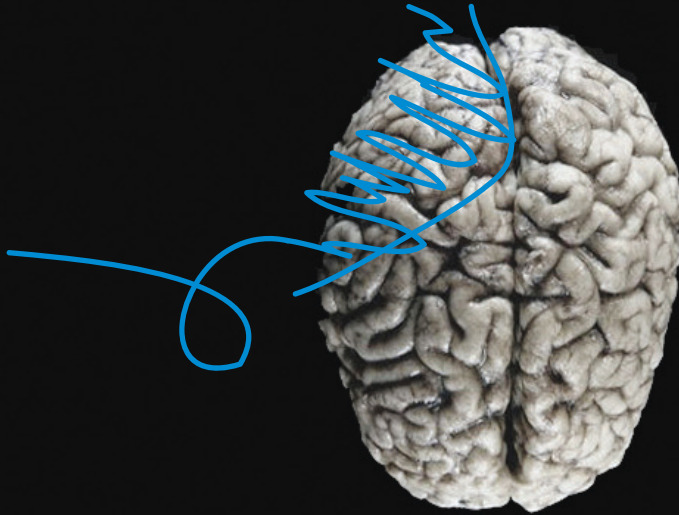
“Our hikes always have a substantial number of participants in their sixties and it’s very common to have people in their eighties, as well,” he said.

Kentucky has lost one-fifth of its brain.

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The Synergistic Benefits of Yoga and Massage



BY CORINNE R. LaREAU

A healthy lifestyle promotes total body wellness in a variety of simple and profound ways. The synergistic approach of massage and yoga can help reduce the stress in everyday life and with regular practice can help develop or sustain an overall sense of physical and mental balance.

Many licensed massage therapists are skilled in a variety of therapeutic techniques. After assessing a client's current health status and any identified problem areas of their body, a therapist can customize the massage session to promote wellness and healing. Massage has been

proven to increase circulation, promote relaxation, eliminate toxins, and soothe aching and tired muscles. Massage also improves muscle elasticity and the suppleness of tissues including ligaments, tendons and joints.

As the benefits of massage start to unfold during a session, mental tension can melt away creating an avenue for the mind to become quiet. Body awareness and mind connection may result from receiving a professional massage and can be one of the most powerful effects of this therapy. Whether receiving an occasional or a consistent schedule of massages, the

Suggested Web sites

American Massage
Therapy Association
amtamassage.org
Yoga Alliance
yogaalliance.org

benefits can be significant and are often enhanced when combined with yoga.

The recent resurgence and popularity of yoga in the west is quite an amazing trend. Yoga, a 5,000 year old tradition, is the ocean from which so many other fitness concepts have sprung. Practicing yoga creates the opportunity to lengthen muscles and create space in joints, which often stimulates a higher level of body comfort and awareness.

Yoga also builds endurance and can prevent or reduce injuries for other physical activities by helping to define and expand the limits of the body. Various breathing techniques associated with yoga enhance oxygen flow to the body and nourish muscles. With continued practice, many yoga practitioners note a softening of the mind akin to meditation. In its purest form and over time, yoga has the capacity to open the body and mind. Forcing, straining or giving up too soon can often be a step back. The design of a yoga program is essential to creating success in its implementation.

Starting a new endeavor can be intimidating at first. Working with an experienced massage therapist or a skilled yoga instructor provides the practitioner with the opportunity to promote holistic balance and harmony. The best way to obtain background information about yoga and massage and to locally pursue these wellness activities is through a search of the Web or by asking friends who utilize yoga or massage.



Corinne R. LaReau is a licensed massage therapist and yoga instructor. She can be reached at yogamoons@gmail.com.



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