

A WALK THROUGH YOU!

YOU! The Experience interprets the theme of life and health through a series of topic areas through which guests can explore what it means to live a healthy, vital life: Your Beginning, Your Future, Your Appetite, Your Movement, Your Heart, Your Mind, Your Vitality and Medical Innovations.

A look at some of the more than 50 activities, experiences, artifacts and specimens in the exhibit, by topic area, is below.

YOUR BEGINNING

Your Beginning is about exploring the wonders of human development—an awe-inspiring journey that we all have made. This area's gallery is a place of quiet reflection and wonder, in contrast to the more lively spaces throughout the rest of the exhibit. It also contains a dual-use space that serves as a small theater for a key media piece as well as an opportunity for Museum educators and facilitation staff to engage guests and school groups in dialog and conversation about human development. Your Beginning contains the following:

Male and Female Plastinated Torsos: The male and female specimens show the body from the neck to the upper thigh and reveal the organs and parts contained within the torso section, including some of the reproductive organs.

Make Room for Baby: View the impact of the developing fetus on the mother as you as you control a virtual timeline. At key points along the timeline you can see images and animations depicting the changes the mother's body experiences during pregnancy. Quotes from real women describe the physical, emotional and psychological changes they go through over the course of their pregnancy.

Prenatal Development: Observe a stunning timeline of human prenatal development through the Museum's historic collection of 24 real, human embryos and fetuses ranging from 27 days to 38 weeks. This timeless display, which was donated to the Museum in 1939, has been reinterpreted in this darkened gallery to allow for quiet reflection.

Fantastic Journey: Adjacent to the prenatal display is a small theater space in which you can be immersed in the "fantastic journey" of human development from the perspective of inside the womb. Beautiful animations and images help tell the story of how we develop from conception to birth. This space also serves as an opportunity for Museum educators and facilitators to interact with school groups and the general public.

YOUR MOVEMENT

This area inspires guests to get up and get moving! No matter your age, state of health, or limitations, there are ways to be active and have fun doing it. The experiences encourage guests to explore what kinds of activities suit their own personality and preferences, and provide ideas for staying fit.

Get in the Action: Interact with a virtual coach and learn some hip-hop dance moves, basketball or a brief tai chi sequence. Reflective flooring has been placed in front of a large screen in which your virtual coach appears to guide you. When you stand on the flooring, a camera captures your silhouette and projects it onto the screen. As you watch your "coach" on the screen, you also see you own silhouette and your arms, legs and body leave vibrant, colorful trails behind you.

What's Your Sport?: A mechanical interactive lets you rate yourself according to seven different personality characteristics. Your result is matched up with different physical activities and sports that are best suited to your unique personality and preferences.

Stay Active: A double-amputee who rock climbs, a paralyzed surfer, a quadriplegic rugby player and a tennis player with half his brain removed—their stories and more are told in this area through photos, videos and artifacts. The spirit of these people, and their ingenious ways to stay active despite enormous personal challenges, are inspiring. The "echolocation" activity allows you to put yourself in the place of one of these extraordinary people, as you try out a sonar device used by a group of blind mountain bikers. Put on a set of headphones, close your eyes and point the device at various materials. Try to identify the materials that are in front of you— and then imagine doing this while riding a mountain bike at top speed, as shown in a featured video.

Human Hamster Wheel: Get inside the human-sized hamster wheel and start moving! As you walk, you will get real-time feedback on your body's response to physical activity. Those watching can monitor your heart rate and progress, and learn more about how the body's organs and functions are affected by exercise.

Comparison of Normal and Obese Legs: These plastinated specimens help demonstrate how exercise contributes to a healthy body—as well as the negative impacts of a sedentary lifestyle. A cross-section from the leg of a person of normal weight is compared with cross-sections from the legs of a moderately obese person as well as a morbidly obese person. The three specimens illustrate how the muscle tissue can be pervaded by fat.

A plastinated leg with an artificial knee, as well as a sagittal section of an aged knee, show the wear and tear that can occur with age.

YOUR HEART

Your Heart weaves together the biological and metaphorical aspects of our hearts that put them at the center of our lives and health.

Giant Heart: The Museum's new Giant Heart is a vibrant, three-dimensional structure—both virtual and physical—that modernizes the idea of the Museum's old iconic walk-through heart. The Giant Heart stands more than 13-feet high and eight-feet wide, and two kiosk stations allow you to interact with this amazing virtual organ. At one, you can take your pulse and transmit it to the heart so that it beats in time with your own. At the other, you can choose to view either exterior views or a series of interior views of the heart.

What's in Your Blood?: Interact with a virtual bloodstream and explore the myriad of cells and molecules in blood that enable your nourishment, your emotions, your physical activity and your body's healing mechanisms. Animation depicts realistic views of a blood vessel with blood flowing through it. In the blood are animated cells and molecules that you can catch and drag to an "analysis station." The composition of cells and molecules in the blood also changes with different "body states," such as healthy and physically active, or fighting off an infection.

The Chemistry Between Us: In this table-top interactive, three hearts projected onto a motion-sensitive screen portray three different chemical facets of love: testosterone, dopamine and oxytocin. Explore and learn about the real "chemistry between us" by making your virtual heart dance with another heart that represents one of these different chemicals that creates the feeling of love. During the dance, the heart sings the praises of whichever chemical is influencing it, using phrases like "You're looking pretty nice," and you discover that the emotions we all feel, have an actual physical basis in your body.

Arterial configuration: This plastinated specimen highlights the major blood vessels of the heart, kidneys and uterus and how the vessels serve these organs.

Vascular Body: This whole-body plastinate shows the incredible network of vasculature that connects all of the body together. All other tissues and structures are stripped away for an amazing look at the human body's vast network of blood vessels.

Comparison of Six Organs: This display shows comparisons of healthy and diseased plastinated organs. Guests will view the sobering differences between a healthy heart and an enlarged heart; a normal lung compared to the blackened tissue of a smoker's lung; a healthy liver and diseased, enlarged liver.

YOUR MIND

The Your Mind examines how our thoughts, emotions, and the way we make decisions influence and impact our health. The activities in this area highlight the connections between mind and body—and how we can use these connections to optimize our well-being.

Your Brain: Explore your brain in 3-D. "Augmented reality" technology presents four unique activities that depict how your brain works while involved in different processes: memory, hand-eye coordination, , and mental exercises like solving spatial puzzles. You can then zoom in for a 3-D view of the brain's macro structure and find out what areas of the brain you were using and their functions while you played the games.

Brain and Nervous System: This plastinated specimen shows the intricacy of the brain, spinal cord and nerves that emanate from the spinal cord, isolated from the rest of the body.

Attention: An eye-tracking device lets you survey different video or animation scenes and then shows you the pathway that your eyes followed. In the process you learn why we tend to notice certain types of information more readily than others and how this can help or hinder us.

Shocker: Are you a risk taker? Step up to this lightly electrified ball and see if you're willing to take a chance on getting shocked. It doesn't happen every time. How does risk-taking contribute to or detract from your life and your health?

Create an Ad: Create a 20-second commercial for a bottle of "Great Lakes Pure" water, and in the process, discover the common psychological tactics, such as "framing," that are used to influence our buying choices. You select from a group of storyboards, taglines, graphic colors and music to create your own personalized version of a commercial. At the end, when you play back your commercial, you get a humorous annotated version that reveals the various tactics embedded within the advertisement.

Mirror, Mirror: Being able to express and perceive emotions is critical in creating empathy and understanding among people. These connections enhance our well-being. In this two-person game, one player selects an emotion to convey while the other must guess the emotion. The "emoting" player spins a wheel to select the emotion and a random sentence to read, for instance the emotion of "pride" and the sentence "cats chase mice." The other player tries to identify the emotion being conveyed as the sentence is read.

Self Portrait: Designed for younger guests, this activity invites kids to play with magnets decorated with fanciful images to create a "self-portrait" that reflects how they see themselves.

YOUR APPETITE

The Your Appetite section focuses on being conscious of what we eat—and how we make choices about our food as individuals and within our society.

Food Tally: Guests can select from categories of food groups to answer the question: "What did you have to eat yesterday?" Their food selections are represented iconically on a virtual plate and compared to the sum food selections of all previous Museum guests. Along the way discover how your diet stacks up against a healthy, recommended selection of foods.

Digestive System: A plastinated specimen details a complete digestive system—from esophagus to intestines to colon—shown isolated from the rest of the body.

Snack Attack: This mechanical interactive lets you literally feel the impact of eating or avoiding just a small amount of snack food over time. As you lift each "snack" you'll feel the proportionate amount of weight you could gain, or lose, in a year by eating or avoiding that particular snack each day.

Supersize YOU: Four boxes let you superimpose 3-D images of four familiar foods to compare portion sizes from 1975 with today's typical "supersized" portions.

Kitchen Table: A fast-paced series of multi-player games, projected on a tabletop, engage you in issues related to the food-related choices we make as individuals and as a society. The games get you to participate and weigh in on provocative real-life questions such as whether the government should tax junk food, or whether schools should mandate healthy eating and exercise to improve learning and performance.

Hungry Chicago: A series of beautiful photographs feature five Chicagoans and the food they typically eat in a day. Based on the book *Hungry Planet*, the work of Peter Menzel and Faith D'Aluisio, these photos show each person juxtaposed with their daily diet: an iron-worker atop a skyscraper cross beam, a taxi driver with his taxi, an urban gardener surrounded by her stunning garden, a restaurant owner and a ballroom dancer. Along with their photos is a list of their daily food, the quantities and the caloric content.

Real Food? This tongue-in-cheek exhibit displays a Twinkie[®] snack cake, with its own birth certificate, accompanied by playful games that explore what is in some processed foods. The games are a fun way to think about why certain types of ingredients are used in packaged foods.

Food Deserts: A large-scale map of the greater Chicago area highlights areas where healthy, fresh food is very difficult to come by. Along with this story of "food deserts" are stories of people and organizations that are making progress in creating opportunities for better access to healthy foods throughout Chicago.

Food For Thought: This virtual "message board" encourages you to reflect on your own life in the context of your relationship with food. Broad questions and/or other people's comments are the stimulus for inviting guests to share their own thoughts about food choices, favorite food memories, unusual foods and how food relates to their own self-image.

YOUR VITALITY

Your Vitality emphasizes the general theme of optimizing our health and well-being. It engages you in real-time experiences that reflect mind-body connections and raises awareness about other factors that contribute to, or detract from, our overall life and health.

Mindball: In this two-player game, you have to try to "out-relax" your opponent in order to win. Each player wears a headband equipped with metal sensors that detect the brainwaves that become elevated with relaxation. The players sit on opposite ends of a table that contains a metal strip and small ball. The ball is able to roll from one end to the other in response to electrical signals from the players' brainwaves. The more relaxed player a player becomes, the farther their ball will travel toward their opponent's goal. A monitor above the table shows the brainwave activity of each of the players so that spectators can

watch the game's progress, and literally, what is going on in each player's head! When the ball hits one of the goals, the winner is declared.

Expanded Body: This whole-body plastinate is displayed with the various parts of the body separated, but connected through a thin support structure. It provides a clear and fascinating look at the relationships among the body's various structures, organs and tissues.

Support Networks: Behavioral and neuro-psychology research shows that connections among people are vital for good health. And giving support is important as well as receiving it. In this interactive you create a visual, artistic representation of your own personal support network based upon your answers to a series of questions about the people and types of support you receive and give.

Sleepers: Lie down on this bed and channel surf to view humorous videos that interpret the physiological benefits of getting a good, solid eight hours of sleep! Intermittent "infomercials" are tailored to you based upon the information you gave about your sleep habits.

Stressed Out?: In this simple graphic display, you are asked a series of questions about different situations or events that are common causes of stress. You will determine if a particular stress helps you (studying for a test) or harms you (long-term chronic stress)?

Laugh Garden: A "garden" of smiling faces greets you and responds to your movements with increasing amounts of laughter. These computer screen faces also appear to interact with each other emphasizing the contagious nature of laughter, its ability to stimulate a laughter response, and the connections that people's laughter can create.

YOUR FUTURE

Your Future is about exploring, understanding and making the most of the normal changes we experience, decisions we make, and experiences we have as we grow, develop and mature throughout our lives. In this area you can learn about the underlying biology of some typical, visible changes to your body that occur over time, as well as how your daily choices and habits can impact those changes. You can also reflect on life goals you have achieved, or hope to achieve.

We All Change: Discover how your body continually renews and replenishes itself through pools of stem cells that reside in various organs and tissues. See yourself in silhouette, dial in your age and find out how "old" the different organs in your body are—they're not all the same. In this interactive you can also explore other normal biological changes in our voices, vision and brains as we grow, develop and mature throughout life.

100 Things to Do: At this interactive station, catch and arrange words, icons and phrases floating across screens to create your own virtual "to do" list of life goals for friendship, learning, adventure, and more.

Face Your Future: Capture an image of your face and then answer questions to see how your lifestyles and habits can affect the way your facial features might change with age. Watch your image "age" based on your answers.

Century Club: Walk along a portrait gallery of centenarians (100 years old or older) and hear what these vital seniors have to say about life and health. Hear from scientists who study aging what we're learning about the aging process and human longevity.

Talk to Me: This storytelling booth invites you to share a story about yourself and your life with another person acting as "interviewer." Enter the booth and select a story topic from a list that ranges from "the most important decision you've ever made" to "the funniest thing you've ever seen." You can also explore an archive of previous story snippets at the booth's "timeline" of life's stories.

MEDICAL INNOVATIONS

The Medical Innovations area showcases recent breakthroughs and trends that are changing the field of medicine, celebrates the innovative spirit and creativity needed to find solutions to health problems, and delves into the impact of medical technology on society. This section also encourages guests to consider how they fit into the future of medicine, both as a beneficiary of medical technology and as a potential innovator, scientist or health professional.

iStan: This Human Patient Simulator is a computer-driven, full-sized mannequin that simulates highly realistic medical scenarios. At least two times a day, guest groups can participate in MSI Hospital, a facilitated session that allow them to take Stan's vital signs and compare them to their own, listen to his breathing, diagnose medical issues, administer treatments and analyze the results of their work.

Vein Viewer: Place your arm under the scope of the vein viewer and see an image of the blood in your veins via an infrared camera. This device is being used today in hospitals to aid medical staff in pinpointing hard-to-find veins in children, the elderly, and patients undergoing chemotherapy.

Personalized Medicine: Learn how doctors can use DNA-based technology to help identify the best treatments for patients based on their individual genetic profiles. Examples include a DNA test that determines whether a patient's breast cancer is best treated with a particular drug, and how differences in metabolism contribute to determining what dose of drug they should take. Fluorescence in situ hybridization (FISH) technology is featured in this interactive station. This technology is used in the PathVysion[®] test—created by Abbott—to determine the HER2 status of women with metastatic breast cancer.

Imaging Databases: Learn about modern imaging technologies, such as MRI and ultrasound, as you select from a rich database of real medical images. Compare healthy and diseased organs, view injuries, select various systems to view.

Body Slices: The Museum's historic collection of real, human anatomical sections, which date back to the 1930s and were first displayed in the Museum in 1943, serves as reminder of a time when the only way to see inside the body was to cut it open—a contrast to the modern-day imaging databases that are located just beyond.

Interactive Prosthetic Arm: Control the movement of an authentic, myoelectric, prosthetic hand and arm by means of electrodes that detect the nerve signals responsible for controlling muscle movement of your own arm.

High-Tech Human: Get a first-hand look at cutting-edge technologies that can aid or replace various ailing parts of the body. Examples include: a bionic arm that moves in response to the patient's thoughts, artificial skin, a bio-engineered heart valve, and Abbott's next-generation heart stents, which are coated with drugs to prevent the artery from re-clogging and are also absorbed by the body over time.

Future Forum: In this group setting, engage in discussion and dialogue with a virtual facilitator on a topic relevant to advances in medicine and technology—and how these intersect with social issues. The Future Forum question is "Should patients be able to receive full-body CT scans as a means of preventive medicine?" The guest forum votes on the experts or stakeholders (doctors, scientists, professionals, everyday people) they want to hear from on this issue, and at various times throughout this video experience, they are asked to voice their opinions electronically, which are then tabulated and stored. At the end of the session, the group can analyze their opinions and also see where they rank among other guest groups. This area can also be used for special facilitated sessions.