

Creighton University HS-MACA

Summer Research Institute

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National Institute of Health

NIH is the nation's medical research agency – making important medical discoveries that improve health and save lives.

The National Institutes of Health (NIH), a part of the U.S. Department of Health and Human Services, is the primary Federal agency for conducting and supporting medical research.

Helping to lead the way toward important medical discoveries that improve people's health and save lives, NIH scientists investigate ways to prevent disease as well as the causes, treatments, and even cures for common and rare diseases.

NIH research impacts:

- Child and teen health,
- Men's health,
- Minority health,
- Senior's health,
- Women's health, and
- Wellness and lifestyle issues

Composed of 27 Institutes and Centers, the NIH provides leadership and financial support to researchers in every state and throughout the world.

For over a century, the National Institutes of Health has played an important role in improving the health of the nation. The NIH traces its roots to 1887 with the creation of the Laboratory of Hygiene at the Marine Hospital in Staten Island, NY.

NIH Mission

NIH is the steward of medical and behavioral research for the Nation. Its mission is science in pursuit of fundamental knowledge about the nature and behavior of living systems and the application of that knowledge to extend healthy life and reduce the burdens of illness and disability.

NIH Goals

1. To foster fundamental creative discoveries, innovative research strategies, and their applications as a basis to advance significantly the Nation's capacity to protect and improve health;
2. develop, maintain, and renew scientific human and physical resources that will assure the Nation's capability to prevent disease;
3. expand the knowledge base in medical and associated sciences in order to enhance the Nation's economic well-being and ensure a continued high return on the public investment in research; and exemplify and promote the highest level of scientific integrity, public accountability,

and social responsibility in the conduct of science.

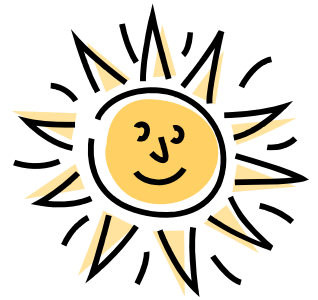
In realizing these goals, the NIH provides leadership and direction to programs designed to improve the health of the Nation by conducting and supporting research:

- in the causes, diagnosis, prevention, and cure of human diseases;
- in the processes of human growth and development;
- in the biological effects of environmental contaminants;
- in the understanding of mental, addictive and physical disorders; and
- in directing programs for the collection, dissemination, and exchange of information in medicine and health, including the development and support of medical libraries and the training of medical librarians and other health information specialists.



LEARN HOW TO PROTECT YOURSELF FROM THE HEAT:

Periods of extremely hot weather--heat waves--can cause serious health problems for everyone. In fact, among weather-related events, heat waves are a leading cause of death. Illinois experienced this firsthand in July 1995, when extreme heat contributed to the deaths of more than 700 people in the Chicago area. The following are commonly asked questions about heat-related conditions and how to safely cope with them.



Why do high air temperatures affect the body?

Normally, the body cools itself by sweating. If temperatures and humidity are extremely high, however, sweating is not effective in maintaining the body's normal temperature. When this happens, blood chemistry can change and internal organs--including the brain and kidneys--can be damaged. Heat also can be stressful if the temperature changes suddenly, since it usually takes several days for the body to adjust to heat.

What are some of the most common heat-related conditions?

The most common heat-related conditions are heatstroke, heat exhaustion, heat cramps, sunburn and heat rash. Heatstroke and heat exhaustion are the most serious conditions.

What is heatstroke?

Heatstroke occurs when the body becomes unable to control its temperature: the body's temperature rises rapidly, the sweating mechanism fails and the body is unable to cool down. Body temperature may rise to 106 degrees F or higher within 10 to 15 minutes. Heatstroke can result from overexposure to direct sunlight, with or without physical activity, or to very high indoor temperatures. It can cause death or permanent disability if emergency treatment is not given.

What are the symptoms of heatstroke and how are they treated?

Symptoms of heatstroke include an extremely high body temperature (above 103 degrees F, orally); red, hot and dry skin; rapid pulse; throbbing headache; dizziness; nausea; confusion; and unconsciousness.

If symptoms of heatstroke are present, find a cool place, preferably an air-conditioned indoor setting. Outside, find a spot in the shade. Put the person in a semi-sitting position. Loosen his or her clothing and bathe the head and body with COLD water. Seek medical attention immediately.

What is heat exhaustion?

Heat exhaustion can result when too much time is spent in a very warm environment, resulting in excessive sweating without adequate fluid and electrolyte (salt and minerals) replacement. This can occur either indoors or outdoors, with or without exercise.

What are the symptoms of heat exhaustion and how are they treated?

Symptoms of heat exhaustion may include dizziness, headache, nausea, abdominal cramps, shallow breathing, cool and clammy skin, muscle tremors and heavy perspiration.

A person suffering from heat exhaustion should be moved to an air-conditioned environment if possible. If outside, move the person to a shady spot. Loosen the person's clothing and encourage him or her to drink cool, non-alcoholic, decaffeinated beverages. Keep the person quiet. It may be necessary to seek medical attention if symptoms worsen or last longer than one hour or if the person has heart problems or high blood pressure. If left untreated, heat exhaustion may progress to heatstroke.

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Person of the Week: Joe Michaelsen

Joe Michaelsen is the Summer Intern for the HS-MACA department. Joe was born in Columbus, NE and went to High School at Mount Michael Benedictine in Elkhorn, NE. Joe is currently a junior at the University of Nebraska – Lincoln where he is majoring in Finance and Accounting and plans to graduate in the spring of 2009. After graduation, Joe plans to study for the CPA exam in hopes of becoming a Certified Public Accountant and eventually be an accountant for a large corporation.



In his free time, Joe enjoys hanging out with friends and family. During the summer months, he spends lots of time at the lake with his friends. Joe goes to the lake to go wakeboarding about 3-4 times a week. When he isn't at the lake, Joe spends a lot of his time playing sports with his friends, especially soccer and basketball. Joe cherishes the time he gets to spend with his family now that he no longer lives at home. His twin brother, Adam, recently got his private pilot's license, so enjoys taking random flights with him.

July/August 2007

Sun	Mon	Tue	Wed	Thu	Fri	Sat
15 July	16	17	18	19	20	21
22	23	24	25	26	27 Scientific Paper Final Abstract Due	28
29	30 Scientific Poster and Paper Due	31	1 August	2 SRI Collo- quium: 9:00 to 3:00	3	4
5 Depart for NIH—D.C.	6 NIH	7 NIH	8 NIH	9 Return from D.C.	10 Participant Exit Inter- view	11
12	13	14	15	16	17	18

Schedule of Events

- July 27th—Scientific Paper Final Abstract Due
- July 30th—Scientific Poster and Paper Due
- Aug. 2nd—SRI Colloquium Union: Union Pacific Room 9:00 a.m to 3:00 p.m.
- Aug 5th—9th—National Institute Health— Washington D.C.
- Aug. 10th—Participant Exit Interview

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How can I avoid heat exhaustion and heatstroke?

Try to keep cool during extremely hot weather. Stay in a cool environment (preferably air conditioned), drink plenty of fluids--such as water, fruit juices or fruit drinks--and use common sense. Heat injury may develop with or without feelings of discomfort.

What if I do not have an air conditioner?

Seek out the nearest facility that is air conditioned, such as a cooling shelter, a senior citizen center, a church, the local YMCA or a center designated by your community. Even short periods of time in a cool environment will lessen the risk of heat injury. Fans alone will not effectively cool an overheated person when air temperatures are above 100 degrees F.

Limit outdoor activities.

Try to plan activities for the coolest times of the day--before noon and in the evening. When physically active, rest frequently in the shade.

Drink plenty of fluids.

During hot weather, you will need to drink more liquid than your thirst indicates. Even if you remain indoors and limit your activity, your body still needs to replace lost fluids, salt and minerals. Make an extra effort to drink a minimum of six to eight 8 oz. glasses of cool fluids daily. During heavy exercise in a hot environment, drink two to four glasses of cool fluids each hour. Parents should be sure young children get sufficient fluids. If you are on a special fluid-restricted diet or if you take diuretics, ask your physician about fluid intake during hot weather.

Protect your body.

Wear as little clothing as possible when indoors, and wear light colored, loose fitting clothing outdoors. When spending time outdoors, avoid direct sunlight, wear a hat and use a sunscreen with a sun protection factor (SPF) greater than 15 to protect yourself against sunburn.

SOURCE: Illinois Department of Health

Contact Information

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THE MISSION OF HS-MACA

To help Health Sciences Schools in the training and development of future leaders for an increasingly multicultural society

GOALS OF HS-MACA

- To serve the needs of the minority students in the Health Sciences Schools by providing support and retention services
- To support the effort of the Health Science Schools to increase the number of underrepresented students
- To promote and cultivate diversity awareness to the entire campus community
- To train culturally competent students, faculty, and staff
- To provide compassionate service to the underrepresented and underserved of the local community

Health Sciences
Multicultural and Community Affairs

