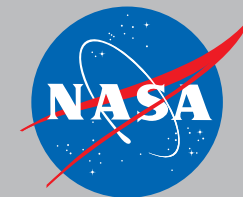
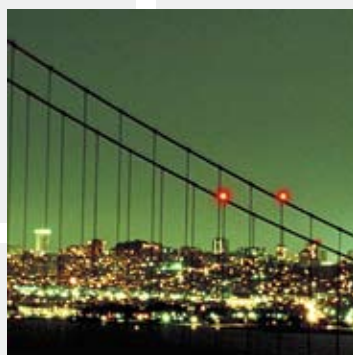
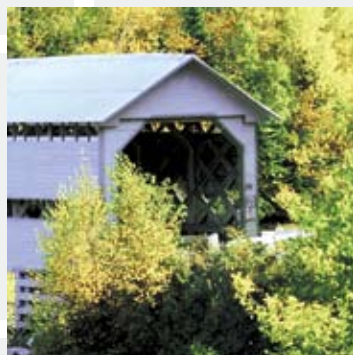
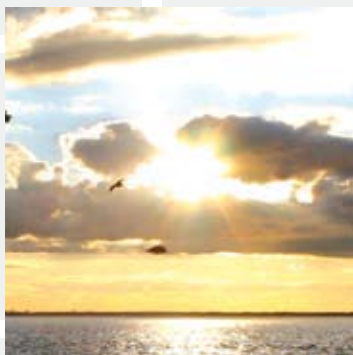


2006



HealthierNASA



www.nasa.gov

Office of the Chief Health and Medical Officer
www.ohp.nasa.gov

2006 HealthierNASA Campaign



Introduction

An important factor to successfully change lifestyle habits is the support from friends and family. To create a network of support for NASA employees, the Agency's Office of the Chief Health and Medical Officer (OCHMO) provides guidance and oversight to approximately 400 Occupational Health professionals who administer a myriad of preventive health services to the NASA workforce.

Last year, OCHMO introduced a 15-month campaign titled HealthierNASA 2005. This year, HealthierNASA 2006 promotes the same message of Personal Accountability for Health and Safety by enlisting a variety of tools. The table below details the HealthierNASA 2006 campaign activities at-a-glance.

The HealthierNASA 2006 Calendar focuses on the connection between workplace hazard exposure and health outcomes, similar to the focus of Steps to a HealthierUS and HealthierFeds with their central foci of "safety at work, healthy lifestyle choices". Some months of the HealthierNASA 2006 calendar contain brief facts about a particular topic while others may also include self assessment.

| Month & Center | Monthly Calendar Topic | Health Observance & Campaign | Health Promotion |
|----------------------|--------------------------|---|------------------|
| January/OCHMO | Body Image | Influenza Vaccination Drive Continues from 2005 | Nutrition |
| February/HQ | 10,000 Steps per Day | | |
| March/SSC | Metabolic Syndrome | | |
| April/DFRC | Preventative Health Care | National Employee Health & Fitness Day | IAQ |
| May/GSFC & WFF | Indoor Air Quality (IAQ) | | |
| June/LRC | Heat Stress | | |
| July/JPL | Ergonomics | Influenza Vaccination Drive | Mental Health |
| August/KSC | Radiation Safety | | |
| September/JSC & WSTF | Lead | | |
| October/MSFC & MAF | Second-Hand Smoke | Influenza Vaccination Drive | Mental Health |
| November/ARC | The Rx Generation | | |
| December/GRC | Hearing Conservation | | |

Occupational Health Clinic and Employee Assistance Program (EAP) Phone numbers

| Center | Clinic | EAP |
|--------|--------------|--------------|
| ARC | 650-604-5287 | 650-604-5172 |
| DFRC | 661-276-3570 | 661-276-2000 |
| GRC | 216-433-5841 | 216-433-6132 |
| GSFC | 301-286-6666 | 301-286-4600 |
| HQ | 202-358-2600 | 202-628-5100 |
| JPL | 818-354-3319 | 818-354-3680 |
| JSC | 281-483-4111 | 281-483-3014 |
| KSC | 321-867-3346 | 321-867-7398 |
| LRC | 757-864-3195 | 800-950-3434 |
| MAF | 504-257-2701 | 504-257-2415 |
| MSFC | 256-544-2390 | 256-544-7549 |
| SSC | 228-688-3810 | 228-688-3005 |
| WFF | 757-824-1266 | 757-398-2374 |
| WSTF | 505-524-5211 | 505-647-2800 |



Occupational Health Support Office
 Mail code: DYN-4
 Kennedy Space Center, FL, 32899
 (321) 867-3646
www.ohp.nasa.gov

Calendar Evaluation Form

Please complete the evaluation form for the Healthier NASA Calendar and forward to the address listed on the back of this form. Use Pouch mail if you are not located at KSC.

Was the calendar's health information of value to you? Yes No

Was the material easy to read and understand? Yes No

Were the pictures and design appealing? Yes No

Would you like to receive a health calendar on an annual basis? Yes No

Did you share any of the information with your family or friends? Yes No

Did the information help you make health or lifestyle decisions? Yes No

Please share your comments. If you answered NO to any above, please let us know why. _____

Pouch Mail
DYN-4
KSC, FL 32899

Interactive Sites and Health Calculators

National Heart, Lung, and Blood Institute

www.nhlbi.nih.gov

This site has informative education tutorials and health assessment tools as well as a health professional portal.

Mayo Clinic

www.mayoclinic.com

Find reliable health information, good recipes and health tools on this site.

Blue Cross, Blue Shield of Massachusetts (BCBS of MA)

www.ahealthyme.com/topic/cooltools

This site has a variety of interactive health assessment tools and informative resources. You can also register on this site for a weekly health related newsletter sent to your email.

Aetna Intellihealth

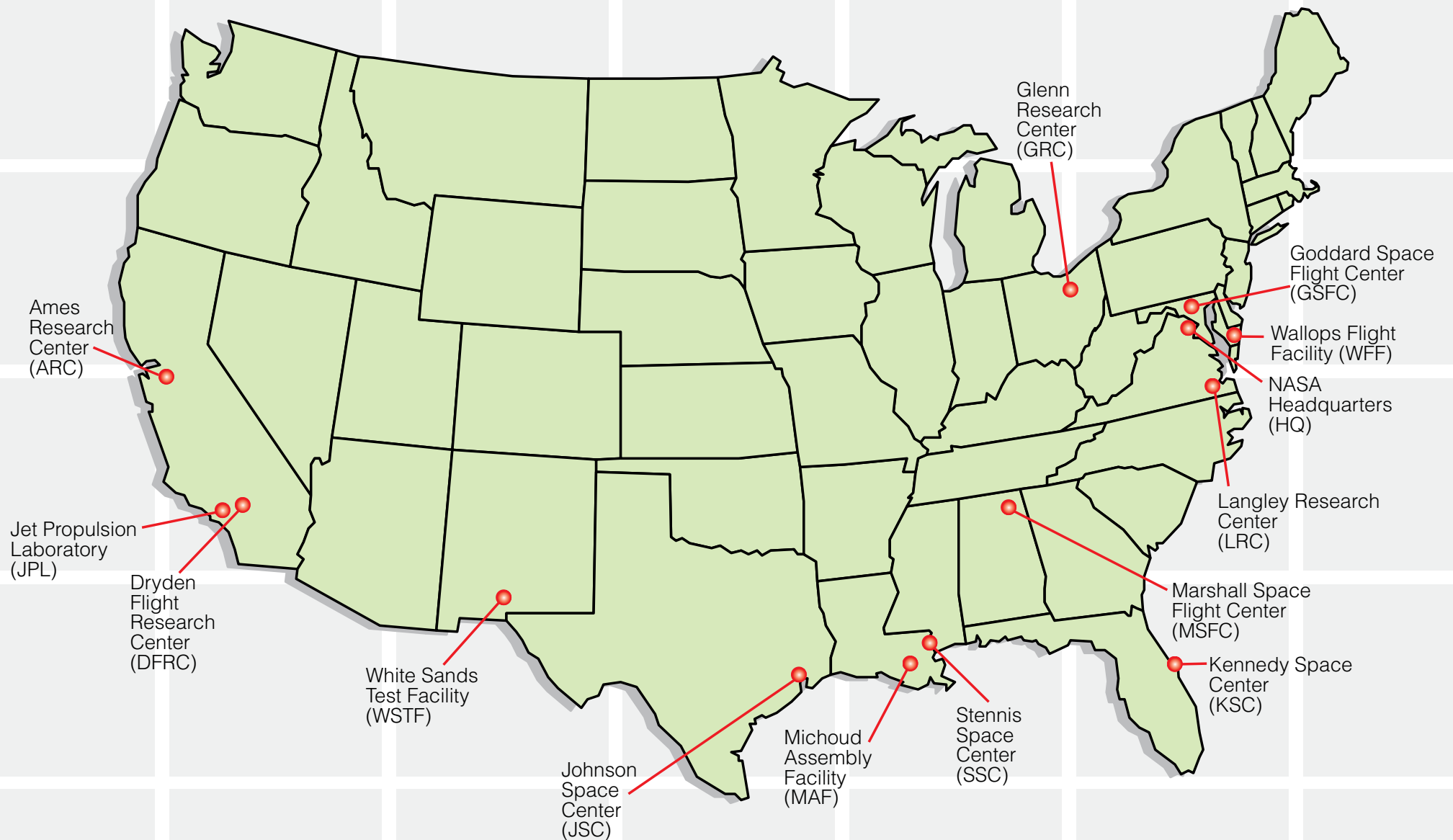
www.intelihealth.com/IH/ihtIH/WSIHW000/408/408.html

Interactive features on this site are multiple. Try the many quizzes to test your knowledge.

NASA Centers

NASA work occurs in almost every part of the nation, in schools and universities, in contractor facilities, in the facilities of our International Space Station Partners, and... in space!

Each of our primary NASA centers shown on the map below is responsible for various parts of our numerous and varied research and development programs.



Body Type and Body Image



The International Space Station was photographed from Space Shuttle Discovery after the two spacecraft undocked.

Your first concern, regardless of body type, should be maintaining a healthy body weight, while keeping blood pressure and cholesterol levels under control. Be careful of the joints of your lower body. They are highly susceptible to injury especially if you carry excess body weight.

Source: Health Magazine, May 2005

Understand your body type in order to set realistic and attainable goals for weight management and fitness training.

- Body type is “genetic”. Like eye color or the shape of your nose, the blueprint for your body type is set at birth.

Gain a healthy self-image by understanding your body image. Develop a better understanding and acceptance of your body type within the context of social and cultural forces.

- Body image is “learned”. It is influenced and shaped by societal norms, cultural expectations, personal experiences, emotions and self-esteem.

One body type is not inherently better than the other. However, several environmental and societal factors determine which type is more fashionable in a given culture. Despite all shapes and sizes, most people can be placed into three particular categories of body type: Mesomorph, Ectomorph and Endomorph.

- Mesomorph is mostly muscular, thick boned and athletic. A mesomorph quickly and easily forms well sculpted muscles but flexibility may be limited. Weight and body fat tend to distribute more evenly over this body type.
- Ectomorph is slim, with quick metabolism and a lean and delicate frame, narrow hips, long legs and neck. The small bones and frail joints may be limiting.
- Endomorph is curvy, with an hourglass or pear-like shape and a slow metabolism. Bones are small to medium sized and musculature is not well defined. Fat is predominantly deposited in the abdomen, hips and thighs.

www.ohp.nasa.gov

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JANUARY

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06

Sunday

Monday

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New Year's Day

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* Federal Holiday

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* Federal Holiday
Martin Luther King, Jr. Day

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"Tiny Bites Total Big Calories" tutorial
Allow 10 minutes



<http://ohp.nasa.gov/tbites>



NASA Office of the Chief Health and Medical Officer (OCHMO) & Occupational Health Support Office (OHSO)

It is the responsibility of OCHMO to evaluate, monitor, and improve the occupational health of the NASA workforce on Earth and in space by eliminating the incidence of occupationally related injuries and illness and by promoting a healthy lifestyle. OHSO is located at the Kennedy Space Center in close proximity to OCHMO's tenant office. OHSO is comprised of technical and programmatic specialists in the fields of Industrial Hygiene, Health Physics, Healthcare, Conference Planning and Information Technology. OHSO has developed and maintains the NASA OHP website, www.ohp.nasa.gov. **Photo:** On April 21, 2005, NASA and the Indian Health Service (IHS) signed an Inter-Agency Agreement to jointly utilize the IHS Electronic Health Record System. Left: W. Vanderwagen, MD, IHS CHMO Right: R. Williams, MD, NASA CHMO.

Taking Steps: Using Pedometers to Measure and Motivate

Image of Buzz Aldrin's footprint from the Apollo 11 mission.



Facts

- Leisure time physical activity is utilized as a measure of overall "health" in the US.
- Studies show that activity level is a key influence on weight management.
- Work related physical activity has diminished as occupations become more sedentary.
- Today's modes and patterns of transportation are less physically demanding.

Recommendation

Accomplish at least 30 minutes of moderately intense physical activity, like brisk walking, on most if not all days of the week or accumulate at least 10,000 steps per day by potentially including the steps taken while completing the routines of daily life.

Question: Does 10,000 steps per day equal 30 minutes of moderately intense activity?

Answer: Walking 10,000 steps per day is the equivalent of:

- Walking 5 miles
- Burning close to 400 calories per day, the amount required to reduce the risk of chronic disease
- Burning 2800 calories per week - expending about 3500 calories equals one pound of fat loss.

Question: Is 10,000 steps the magic number applicable to all the population?

Answer: The "steps goal" should be personalized considering baseline values, specific health goals, and sustainability of the goal in everyday living.

Take Small Steps

- Consume 100 fewer calories a day - replace a cup of pasta or rice with vegetables or choose fruit instead of chips.
- Add 2,000 steps per day - brisk walk for 15 to 20 minutes.

Classification of pedometer-determined physical activity in healthy adults

| Steps range per day | Physical activity index |
|---------------------|--|
| 5,000 or less | Sedentary |
| 5,000 - 7,499 | Low active, routine daily activity |
| 7,500 - 9,999 | Somewhat active, light exercise or walking |
| 10,000 - 12,499 | Active |
| 12,500 or greater | Highly active |

Sources:

- 1) January, 2004 issue of "Sports Medicine", by Catrine Tudor-Locke, Ph.D. 2) Mark Fenton "The complete guide to Walking for Health, Weight Loss, and Fitness"
 3) The American Institute on Cancer Research, July 2005. 4) President's Council on Physical Fitness & Sports, Research Digest: Series 3, No. 17, June 2002

www.ohp.nasa.gov

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January

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FEBRUARY

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Valentine's Day

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* Federal Holiday
President's Day

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Print "Tiny Bites Total Big Calories" educational flyers



http://ohp.nasa.gov/disciplines/hpromo/campaigns/2005/tbites/edflyer_female.pdf
http://ohp.nasa.gov/disciplines/hpromo/campaigns/2005/tbites/edflyer_male.pdf



NASA Headquarters (HQ)

NASA Headquarters, located in downtown Washington D.C., exercises management over the space flight centers, research centers, and other installations that constitute NASA. Headquarters responsibilities include: 1) determination of programs and projects, 2) establishment of management policies, procedures and performance criteria, 3) evaluation of progress, and 4) review and analysis of all phases of the aerospace program.

Metabolic Syndrome



A test of the Integrated Powerhead Demonstrator at Stennis Space Center's E-1 Test Stand.

- The latest update from the National Heart, Lung and Blood Institute (NHLBI), encourages doctors to screen for “Metabolic Syndrome”.
- Metabolic Syndrome is a constellation of health risks which includes elevated triglycerides, low HDL (good cholesterol), high blood pressure, too much abdominal fat and an inability of insulin to properly control the body’s metabolism of carbohydrates, fats and protein.
- Metabolic Syndrome increases the odds of developing early heart disease, stroke and diabetes.
- Therapeutic Lifestyle Changes or TLC is the first line of treatment. It includes balanced nutrition with portion control, exercise and taking doctor prescribed medication.
- TLC - Balanced nutrition controls blood sugar and provides essential nutrients; exercise increases HDL (good cholesterol) and helps maintain a healthy body weight and blood pressure; any prescribed medication helps as an adjunct to the process.

Metabolic Syndrome Risk Assessment Questionnaire (RAQ)

You are at risk of developing metabolic syndrome if you have at least three of the following traits:

- Abdominal circumference of greater than 40 inches in men or 35 inches in women
- Fasting blood triglyceride level of 150 or greater
- HDL less than 40 in men and less than 50 in women
- Blood pressure of 130/85 or more
- Fasting blood sugar of 100 or more

If you find yourself at risk, consult with your center’s Occupational Health professionals or with your personal physician.

Sources:

National Heart, Lung and Blood Institute www.nhlbi.nih.gov Tiny Bites online tutorial www.ohp.nasa.gov/tbites USDA Dietary Guidelines www.MyPyramid.gov

www.ohp.nasa.gov

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February

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MARCH

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Complete a Portion Distortion Quiz

Allow 10 minutes



http://hin.nhlbi.nih.gov/oei_ss/menu.htm

Ash Wednesday

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St. Patrick's Day

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Spring Begins

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NASA Stennis Space Center (SSC)

John C. Stennis Space Center, located in Bay St. Louis, MS, is America's largest rocket propulsion test complex and home to NASA's Applied Sciences Directorate. In addition to the NASA programs at SSC, Stennis is a unique "federal/commercial city", with more than 30 other federal, state, and commercial organizations also located on site.

Basic Concepts of Preventative Health Care

F-15B flying over
Dryden Flight Research Center



The leading causes of death have changed from primarily infectious diseases and accidents in the early part of the 20th century, to chronic disease and cancer. A great potential for impact on health lies in education aimed at changing personal health behaviors.

Primary Prevention:

Prevent the development of the disease through immunizations and lifestyle changes (i.e. losing weight, exercise, modifying health risk factors).

Secondary Prevention:

Identify and counsel persons with risk factors or pre-clinical disease (i.e. complete a pap smear or blood pressure screening).

Tertiary Prevention:

Management of illness to prevent complications (i.e. insulin therapy in diabetes or cholesterol management in coronary artery disease).

Partner with Your Health Care Provider

Health risk factors increase your chances of developing a condition or disease. They can include habits and lifestyles, family history, exposures to hazards in the environment, age or sex, ethnic group, or having a health condition. Most of the leading causes of death - such as heart disease, cancer, cerebrovascular disease, chronic obstructive pulmonary disease, and injuries - can be linked to a handful of personal health behaviors. Become a partner with your health care provider when deciding on treatment or when you need screenings and immunizations.

For women <http://www.4woman.gov/screeningcharts/screenings-general.pdf>

For men <http://www.4woman.gov/screeningcharts/prev-chart-men.pdf>

Sources

1. Interactive quiz for immunization www2.cdc.gov/nip/adultImmSched 2. Agency for Healthcare Research and Quality www.ahrq.gov 3. Louisiana State University Health Sciences Center www.sh.lsuhsu.edu/fammed

www.ohp.nasa.gov

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March

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Print USPSTF Preventive Health Services for Normal-Risk Adults – and discuss with your physician



<http://www.ahrq.gov/ppip/adulttm.pdf>



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Palm Sunday

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Good Friday

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Easter

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NASA Dryden Flight Research Center (DFRC)

Dryden Flight Research Center, located at Edwards, California, is NASA's primary installation for flight research. Projects at Dryden over the past 50 years have led to major advancements in the design and capabilities of many civilian and military aircraft. The newest, the fastest, the highest - all have made their debut in the vast, clear desert skies over DFRC. Dryden is also a back-up landing site for the space shuttle.

Indoor Air Quality

Sunset on the Chesapeake Bay



Indoor Air Quality (IAQ) is affected by

- Energy saving mandates
- Facility design
- Construction of enclosed buildings to ensure HVAC efficiency
- Increased use of cloth and synthetics such as wall covers, carpeting and cubicles
- Age, condition and structural integrity of the building
- Age, design and condition of the facility HVAC system

Additional Factors

- Facility housekeeping and maintenance
- Chemical sources from outside or inside the building
- Number of residents vs. HVAC capacity
- Geographic location of the facility as humidity and heat increase growth of mold

Inspect your area periodically looking for possible sources of IAQ concerns such as:

- Water damaged ceiling tiles or carpeting
- Water leaks in plumbing, around doors and window sills
- Excessive dust build-up on horizontal surfaces
- Unusually stale, moldy or sewer-like odors
- Damage to the building envelope such as exterior cracks

IAQ symptoms may be difficult to distinguish from other non-building related maladies such as the common cold, allergies and respiratory tract infections. Additionally, individual responses vary with the environmental stimuli. Try to determine if your symptoms only occur while at the workplace. If they do, it may possibly be a workplace IAQ issue. In addition to your work IAQ it is also important to consider the IAQ in your personal residence.

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MAY

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Mother's Day

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* Federal Holiday
Memorial Day



Test your knowledge about women's health

Allow 10 minutes



<http://www.cdc.gov/od/spotlight/nwhw/quiz.htm>



NASA Goddard Space Flight Center (GSFC) & Wallops Flight Facility (WFF)

Goddard Space Flight Center (left) is located in the Maryland suburbs outside of Washington DC. Goddard is home to the Nation's largest organization of combined scientists and engineers dedicated to learning about and expanding their knowledge of the Earth and its environment, the solar system, and the Universe through observations from space. For over 40 years, NASA Wallops Flight Facility's Sounding Rocket Program (NSRP) has provided support to NASA's orbital space programs and the international space community. WFF also manages NASA's Balloon Program and has responsibility for three NASA-owned and operated aircraft. WFF, located on Wallops Island, VA, operates under the auspices of the Goddard Space Flight Center.

Heat Injury and Illness Prevention



Covered bridge in Virginia

When is Heat Hazardous to Your Health?

H.E.A.T Hazards

- **High Heat Index -**
 - Δ Heat Index is the combined effects of ambient temperature and humidity on the body's ability to maintain thermal equilibrium through effective sweating.
 - Δ In general an alarming condition exists when temperatures are above 90° F and humidity is above 60%.
- **Exertion level -**
 - Δ An increased level of activity and manual labor, especially on sequential days.
- **Acclimatization to heat -**
 - Δ Individuals react differently to ambient temperature and environmental conditions depending on a multitude of factors such as physical condition, weight, etc.
 - Δ Acclimatization requires 10-14 days.
- **Time -**
 - Δ Length of exposure, especially on sequential days, plays a role in body's response.
 - Δ Recovery time is essential to allow for body's adjustment to heat and humidity.

Additional High Risk Factors

- Age greater than 40
- Chronic health conditions such as kidney or heart failure or sleep disorder
- Medications, prescribed or over the counter such as cold remedies or Ephedra
- Skin disorders that prevent effective sweating, (e.g., sunburn or heat rash)

Sources
US Army, Center for Health Promotion and Preventive Medicine <http://chppm-www.apgea.army.mil/Resources/>

www.ohp.nasa.gov

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JUNE

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Test your knowledge about men's health
Allow 10 minutes



<http://www2a.cdc.gov/od/menshealth/test.asp>

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Flag Day
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Father's Day

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Summer Begins

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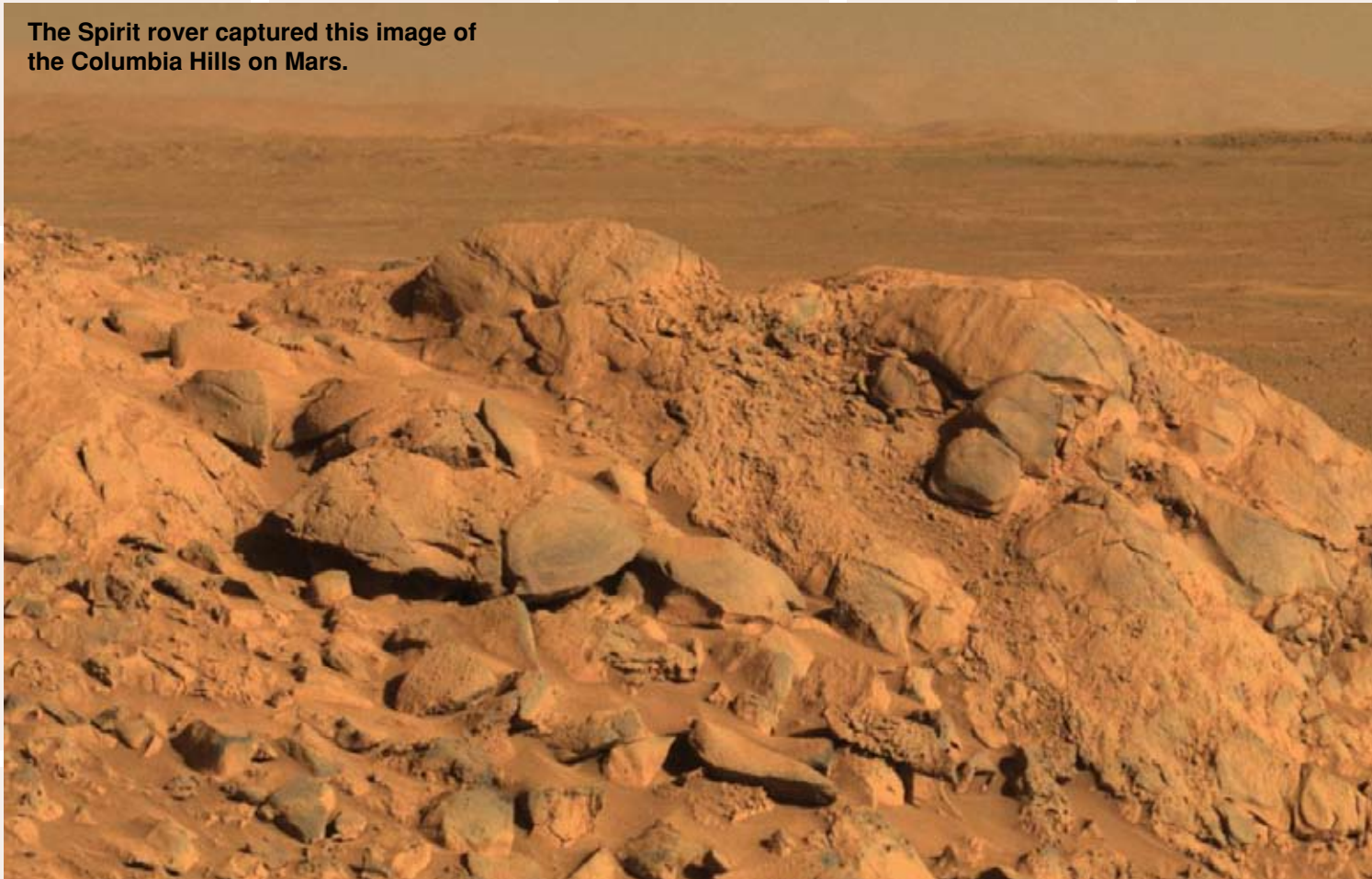


NASA Langley Research Center (LRC)

The next time you get on a plane or watch a U.S. space launch, picture in your mind coastal Virginia, the city of Hampton and Langley Research Center. Since 1917, when LRC was established as the nation's first civilian aeronautics laboratory, its mission and contributions to aerospace, atmospheric sciences and technology commercialization are improving the way the world lives.

Workplace Ergonomics & Musculoskeletal Disorders

The Spirit rover captured this image of the Columbia Hills on Mars.



Ergonomics is the science of:

- Fitting the job to the worker
- Achieving neutral position while performing a job

Musculoskeletal Disorders (MSDs):

- Mismatch between the physical requirements of the job and the physical capacity of the worker.
- MSDs occur mostly because of exposure to this mismatch as well as exposure to repeated trauma.
- The terms repetitive motion injury or Cumulative Trauma Disorder (CTD) also refer to MSDs where signs and symptoms develop slowly.
- This gradual development of symptoms is often ignored until the condition becomes chronic and permanent. Signs and symptoms can include numbness, tingling, pain, deformity, redness, swelling, joint stiffness, and immobility.
- Non-occupational risk factors, such as certain medical conditions, hobbies, lifestyle and personal factors, can increase the risk of developing MSDs.
- Examples of MSDs include Tendonitis, Tennis Elbow, deQuervain's Disease (tenosynovitis of thumb), Trigger Finger, Bursitis, Ganglionic Cyst, Carpal Tunnel Syndrome, Thoracic Outlet Syndrome, and Vibration Trauma.

Risk Assessment Questionnaire (RAQ)

You are at risk for developing MSDs if you respond "Yes" to any of the following questions:

1. Are motions repeated every few seconds for more than 2 hours a day (typing, mousing, or using a hand tool)?
2. Is work performed with a fixed or awkward posture for more than 2 hours a day (holding the body in one position, performing overhead work, neck twisted while viewing the computer monitor; arm extended away from body while mousing, or wrist bent while using a tool)?
3. Is forceful hand exertion applied for more than 2 hours a day (using a hammer, mousing with inappropriate size mouse, using twistlers or pinching grip)?
4. Is a vibrating impact tool used for more than 2 hours a day (using a jack-hammer or landscape tools)?
5. Is unassisted frequent or forceful manual handling performed (repeated heavy lifting without using a lift device)?
6. Is contact stress applied to any part of the body for more than 2 hours a day (elbow on a chair armrest, wrist against desk while keying, mousing, or hand tool pressing against the palm of the hand)?

If you answered "Yes" to any of the questions speak to your supervisor and contact your safety and occupational health professionals.

Sources:
www.osha.gov

Credit:
Robin Kramer, Industrial Hygiene, KSC

www.ohp.nasa.gov

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June

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JULY

August

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06

Sunday

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday



Take an Interactive Sleep Quiz

Allow 10 minutes



<http://www.nhlbi.nih.gov/about/ncsdr/patpub/patpub-a.htm>

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* Federal Holiday
Independence Day

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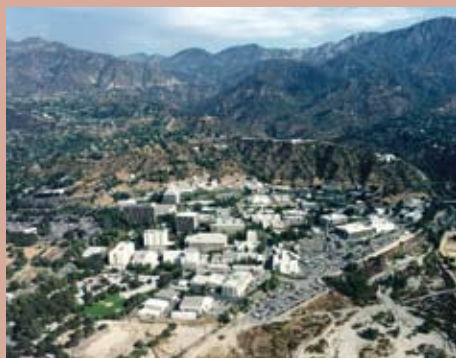
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NASA Jet Propulsion Laboratory (JPL)

The Jet Propulsion Laboratory, located in Pasadena, CA, managed by the California Institute of Technology for NASA, is the agency's lead center for robotic exploration of the Solar System. In January 2004, the Spirit and Opportunity rovers landed on opposite sides of Mars on a mission to search for clues of past water on the red planet. The backbone of this exploration lies with NASA's Deep Space Network, also managed by JPL. This international network of antennas supports communications between distant spacecraft and the Earth-based teams who manage them.

Radiation Safety



Space Shuttle Discovery launches from Kennedy Space Center, beginning the STS-114 mission.

Let's compare the risk of working with or around sources of ionizing radiation versus other risks we accept as part of everyday life. While some of these other risks, like driving, are real, others are hypothetical. For example, no one really knows how much risk smoking a few cigarettes really carries but we do know that 100,000 cigarettes carry a measurable risk.

Activities with a hypothetical one chance in a million risk of death

- Smoking 1.4 cigarettes → lung cancer
- Eating 40 Tbsp of peanut butter → aflatoxin poisoning
- Eating 100 charcoal broiled steaks → carcinogenic substances produced by grilling
- Spending 2 days in NY City → air pollution
- Driving 40 miles in a car → automobile accident
- Flying 2,500 miles in a commercial jet → airplane crash
- Paddling a canoe for 6 miles → drowning
- Receiving 10 mrem radiation dose → cancer

Source:
National Council on Radiation Protection and Measurements (NCRP)

Credit:
Kurt Geber, CHP,
Agency Occupational Health Support Office

- We have always been exposed to natural radiation from the environment and from within our bodies. The average person living in the U.S. receives a radiation dose of about 360 mrem every year from both natural and man-made sources.
- Common types of ionizing radiation are alpha and beta particles, and gamma and x-rays. Ionizing radiation is of most concern because of its biological effects and health risks.
- Common types of non-ionizing radiation are microwaves, radio waves, magnetic fields, ultrasound, infrared heat and visible and ultraviolet light. The main biological effect from non-ionizing radiation is thermal heating.
- Natural radiation exposure is a result of:
 - Δ Cosmic rays from the sun and outer space
 - Δ Radioactivity in the earth's crust, rocks and soils
 - Δ Radon gas
 - Δ Radioactive material present in our bodies from our food and water
- Man-made or manufactured sources of radiation include:
 - Δ Medical and dental use of x-rays
 - Δ Nuclear medicine procedures
 - Δ Consumer products such as smoke detectors, tobacco products, lantern mantels
 - Δ Transportation of radioactive materials and fallout from past nuclear weapons testing

Accepting risk is a personal matter and each individual must weigh the benefits against the potential risk. Learn to live and work safely with and around radiation.

www.ohp.nasa.gov

20

July

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AUGUST

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06

Sunday *Monday* *Tuesday* *Wednesday* *Thursday* *Friday* *Saturday*

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| 27 | 28 | 29 | 30 | 31 | <p>Take American Heart Association's Live and Learn Quiz to live longer and stronger Allow 10 minutes</p> <p>http://www.americanheart.org/presenter.jhtml?identifier=3018118</p> | |



NASA Kennedy Space Center

John F. Kennedy Space Center in Merritt Island, FL is America's premier gateway to the Universe. KSC, as the world's only launch site for the Space Shuttle, prepares the vehicles for each mission, operates each countdown and manages end-of-mission landing and recovery activities. The Center also coordinates all expendable launch vehicle missions carrying a NASA payload regardless of their launch site- Cape Canaveral Air Force Station in Florida, Vandenberg Air Force Base in California, or elsewhere.

Health Effects of Lead



A Mission Specialist during a spacewalk.

Where is Lead Found?

- In general, the older your home, the more likely it has lead-based paint
- Soil picks up lead from deteriorating exterior paint or other sources
- Household plumbing can contain lead or lead solder
- Old painted toys and furniture
- Food and liquids stored in lead crystal or lead-glazed pottery or porcelain
- Hobbies that use lead, such as making pottery, stained glass, or refinishing furniture

What to Do to Protect Yourself and Family

- You cannot see, smell, or taste lead, and boiling your water will not get rid of lead. If you think your plumbing might have lead in it:
 - Δ Use only cold water for drinking and cooking.
 - Δ Run water for 15 to 30 seconds before drinking it, especially if you have not used your water for a few hours.
- You can get your home checked by a qualified professional.
- Some immediate steps to take if you suspect your house has lead hazards:
 - Δ Clean up paint chips immediately
 - Δ Use a mop, sponge, or paper towel with warm water and a general all-purpose cleaner.
 - Δ Wash children's hands often, especially before they eat and nap.
 - Δ Keep children from chewing window sills or other painted surfaces.

Contact the National Lead Information Center (NLIC) for help with locating certified contractors in your area and to see if financial assistance is available.

Facts

You can get lead into your body by breathing or swallowing lead dust, or by accidental ingestion of paint chips containing lead. In 1986 leaded gas was banned in the US; since the disappearance of leaded gas in the United States, the mean blood-lead level of the American population has declined more than 75 percent.

Lead is more dangerous to children than adults because

- Children have lower body weight than adults
- Children's growing bodies absorb more lead
- Children's brains and nervous systems are more sensitive to lead

Sources:

1. Environmental Protection Agency www.epa.gov 2. National Lead Information Center 1(800) 424-LEAD [5323]

Credit:

John Sherwood, Industrial Hygiene, KSC

www.ohp.nasa.gov

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August

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SEPTEMBER

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06

Sunday *Monday* *Tuesday* *Wednesday* *Thursday* *Friday* *Saturday*



Complete a Diabetes Risk Assessment
Allow 10 minutes



English <http://www.diabetes.org/risk-test.jsp>
Espanol <http://www.diabetes.org/espanol/recursos-examen.jsp>

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**NASA Johnson Space Center (JSC)
& White Sands Test Facility (WSTF)**

Lyndon B. Johnson Space Center in Houston, TX, (left) is home to the NASA astronaut corps and is responsible for training space explorers from the United States and our Space Station partner nations. The Mission Control Center manages all activity on board the Space Station and directs all Space Shuttle missions, including station assembly flights and Hubble Space Telescope servicing. WSTF in Las Cruces, NM, under the guidance of JSC, is a preeminent resource for testing and evaluating potentially hazardous materials, space flight components, and rocket propulsion systems.

Secondhand Smoke

The Discovery STS-114 crew poses in front of ET-120 at the Michoud Assembly Facility.



Facts

- Secondhand smoke is a mixture of the smoke given off by the burning end of a cigarette, pipe, or cigar, and the smoke exhaled from the lungs of smokers.
- Secondhand smoke is also called Environmental Tobacco Smoke (ETS).
- Exposure to secondhand smoke is called involuntary smoking or passive smoking.
- Secondhand smoke increases risk of death from heart disease. It can also cause cancer and is classified as a major irritant.

Concerning Children

- The developing lungs of young children are severely affected due to several factors such as:
 - Δ Children are still developing physically,
 - Δ Children have higher breathing rates than adults,
 - Δ Children have little control over their indoor environments.
- Children with asthma are especially at risk.
- Secondhand smoke is considered a risk factor for new cases of asthma in children.

Since 1997, all Federal buildings have become smoke-free per Executive Order 13058 that was issued on August 9, 1997 in order to ensure a smoke-free and healthy environment for Federal employees and members of the visiting public. Smoke-free areas include all interior space owned, rented, or leased by the executive branch of the Federal Government, and any outdoor areas under executive branch control in front of air intake ducts.

Sources:

1. Surgeon General's report on Passive Smoke (U.S. HHS 1986)
2. Environmental Protection Agency www.epa.gov/smokefree
3. Environmental Protection Agency's report titled "Respiratory Health Effects of Passive Smoking: Lung Cancer and Other Disorders", EPA /600/6/6-90/006F
4. National Institute of Health www.nih.gov

If you are interested in smoking cessation programs in your area, contact your local American Cancer Society, local Health Department or your Center's Occupational Health Facility.

www.ohp.nasa.gov

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September

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OCTOBER

November

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06

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* Federal Holiday
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Halloween



Take this Quiz "Is working stressing you?"

Allow 5 minutes



<http://www.mayoclinic.com/health/stress/WL00064>



NASA Marshall Space Flight Center (MSFC) & Michoud Assembly Facility (MAF)

Marshall Space Flight Center in Huntsville, AL (left) manages Space Shuttle propulsion elements and science aboard the International Space Station pursuing scientific breakthroughs in space to improve life on Earth. MSFC develops transportation and propulsion systems, space infrastructure, applied materials and manufacturing processes, scientific spacecraft research and instruments, and large complex systems. Michoud Assembly Facility in New Orleans is a component site for MSFC and the home of the Space Shuttle External Tank (ET). MAF provides the agency with an extensive and world-class production site for manufacturing large aerospace structures. The ET is 154' long, 27.6' diameter and when empty weighs 57,500 lbs. When filled with propellants, the ET weighs over 1.6 million lbs.

Today's Teenagers: The Prescription Generation

Golden Gate Bridge
San Francisco, California



Abuse of medications has penetrated the American teen culture. An increasing number of teenagers are abusing a variety of prescription (Rx) and over-the-counter (OTC) medications for the purpose of "getting high".

Help For Parents: Is Your Child Using Drugs?

The mood swings and unpredictable behavior of the teen years often make it difficult to tell if a child is using drugs; however, there are warning signs you can watch for.

If your child exhibits one or more of the following behaviors or moods, drugs may have become a part of his or her life:

- Withdrawn, tired, or careless about personal grooming
- Hostile, uncooperative, and frequently breaking curfews
- Deteriorated relationships with family members
- Surrounded by a new group of friends
- Grades have slipped; school attendance has become irregular
- Lost interest in hobbies, sports, and other favorite activities
- Change in eating and sleeping patterns (i.e., up all night and sleep during the day)
- Difficulty concentrating
- Eyes are red-rimmed and nose is runny without a history of allergies or an acute "cold"

Drugs may be a factor, if you begin to notice that household money is disappearing or you begin to find any of the following in your home: small rolled papers, small medicine bottles, eye droppers, butane lighters, homemade pipes or bong-pipes that use water as a filter and are made from soda cans or plastic beverage containers.

National Statistics on Reported Abuse

| Prescriptions (RX) | | OTC | |
|---|--|--|--|
| Pain Killers | | Stimulants | Cough Syrup |
| Vicodin | Oxycontin | Ritalin or Adderall | Contains Dextromethorphan (DMX) |
| One in Five Teenagers or 4.6 million (20%) | One in Ten Teenagers or 2.3 million (10%) | One in Ten Teenagers or 2.3 million (10%) | One in Eleven Teenagers or 2.2 million (9%) |

Abuse of Rx and OTC medications by teenagers is higher or on par with teenage abuse of a variety of illicit drugs – Examples: Cocaine/Crack at 9%, Methamphetamine at 8%, Heroin and Gamma Hydroxybutrate (GHB) at 4%.

Source:
Partnership for a Drug-Free America www.drugfreeamerica.org

Credit:
Marion Ruffing, MS, CEAP
Kwajalein Range Services

www.ohp.nasa.gov

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October

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NOVEMBER

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06

Sunday

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Take the Depression Self-Assessment test

Allow 5 minutes



http://www.mayoclinic.com/health/depression/MH00103_D

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* Federal Holiday

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Veteran's Day

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* Federal Holiday
Thanksgiving

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NASA Ames Research Center (ARC)

Founded in 1939 and located in California's Silicon Valley, ARC has evolved into a leader in information technology research with a focus on supercomputing, networking and intelligent systems. ARC is a leader in nanotechnology, aerospace and thermal protection systems, and human factors research. ARC has created partnerships with leading universities and high-technology industry leaders in efforts to advance human knowledge and to explore the unknown while fostering commercial application of NASA technologies.

Noise-Induced Hearing Loss: Prevention is a Goal at Work and at Home

Rock and Roll Hall of Fame
Cleveland, Ohio



The 4 P's of Noise-Induced Hearing Loss

- Painless, generally speaking
- Progressive over time
- Permanent
- PREVENTABLE

How to Characterize Noise? FIND

- **F**requency: Pitch measured in Hertz (Hz)
- **I**ntensity: Loudness measured in Decibels (dBA)
- **N**ature: Steady state vs. sudden impact
- **D**uration: Length of exposure

When is Noise Hazardous?

- 85 dBA for steady state noise source
- 140 dBA for sudden impact
- Individual susceptibility

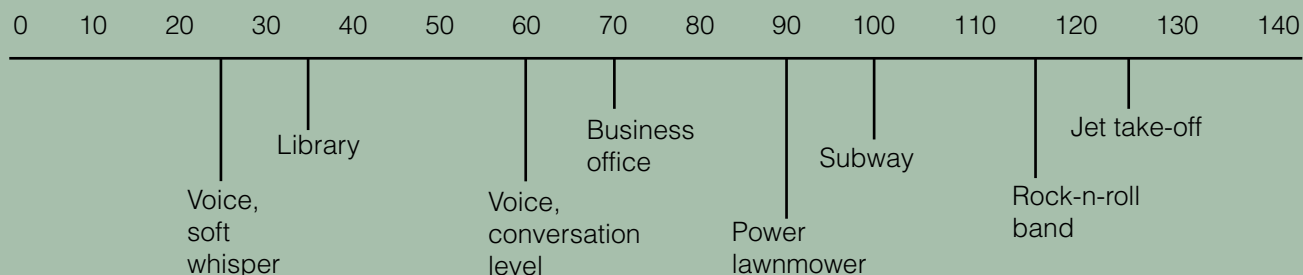
Effects of Noise-Induced Hearing Loss

- Initially, loss of sensitivity to high frequency sounds
- Decreased ability to hear consonants
- Diminished quality of environmental sounds
- Can greatly diminish your ability to communicate and hence quality of life

Prevention

- Wear appropriate hearing protection
- Reduce sound level
- Limit exposure time

Typical Sound Level Expressed in Decibels



Sources

1. US Army Center for Health Promotion and Preventive Medicine <http://chppm-www.apgea.army.mil/Resources/>
2. National Hearing Conservation Association, 303.224.9022 www.hearingconservation.org

www.ohp.nasa.gov

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November

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DECEMBER

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06

Sunday

Monday

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Design a personalized food pyramid for long-term health

Allow 15 minutes



<http://www.mayoclinic.com/health/weight-loss/NU00595>

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Winter Begins

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* Federal Holiday
Christmas

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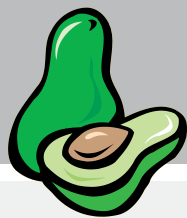
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NASA Glenn Research Center (GRC)

Since 1941, John H. Glenn Research Center, located in Cleveland, OH, has developed and transferred critical technologies that address national priorities in space exploration and aeronautic applications. The work at GRC is focused on research for advanced propulsion systems, aerospace power systems, biological and physical research, communications technologies, advanced materials and structures, and instrumentation and controls for space, aeronautics, and aerospace applications.



HealthierNASA by Choice



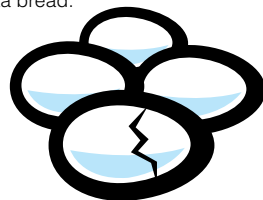
Recipes for Healthy Living

Vegetable Egg White Omelette



Number of portions: 4 Portion size: 1 pita with 4 1/2 oz. filling

- | | | | |
|---------|---------------------------|----|--|
| 8 | Egg whites | 1. | Spray pan with cooking spray over medium heat. |
| 2 oz. | Carrots, peeled & grated | 2. | Put egg whites in the pan. |
| 2 oz. | Onion, chopped | 3. | Add onions, carrots, peppers. Saute until just cooked. |
| 2 oz. | Green pepper, chopped | 4. | Sprinkle in oregano and pepper. |
| 1 tsp | Oregano | 5. | Cook egg mixture until set, then add cheese. |
| 1/4 tsp | Pepper | 6. | Serve on toasted pita bread. |
| 1 oz. | Low fat mozzarella cheese | | |
| 4 | Whole wheat pita | | |
| | Cooking spray | | |



Approximate nutrient analysis per serving: Calories: 232 Percentage of calories from: Protein: 25% Fat: 7% Carbohydrates: 65% Protein: 14.6g Fat: 2g Carbohydrates: 33g Cholesterol: 4mg Sodium: 471mg

Ginger Cabbage Soup



Number of portions: 12 Portion size: 12 oz.

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|---------|----------------------------------|----|---|
| 1/4 | Green cabbage, shredded | 1. | Place all ingredients except the ginger snap cookies in a large soup pot. Bring to a boil, then reduce heat to low and maintain a simmer. |
| 1/4 | Savory cabbage, shredded | 2. | Cook for approximately 1 hour. Soup should reduce by one third. |
| 3/4 cup | Carrots, peeled, shredded | 3. | Prior to serving, break up the cookies and add to soup. |
| 1/4 cup | Large onion, diced small | | |
| 2 oz. | Celery root, cored shredded | | |
| 1 cup | Crushed tomato | | |
| 1 Tbsp | Red wine vinegar | | |
| 1 Tbsp | Brown sugar | | |
| 1/4 oz. | Fresh minced ginger root | | |
| 3 cups | Low sodium, no fat chicken stock | | |
| 1/2 oz. | Ginger snap cookies | | |
| 1/4 tsp | Salt | | |
| 1/4 tsp | Pepper | | |



Approximate nutrient analysis per serving: Calories: 122 Percentage of calories from: Protein: 20% Fat: 10% Carbohydrates: 70% Protein: 6.2g Fat: 1.4g Carbohydrates: 23g Cholesterol: 0mg Sodium: 782mg

Asian Steak w/Mangoes over Romaine



Number of portions: 4 Portion size: 4 oz.

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|---------|-------------|--------|---|
| 4-4 oz. | Vein steaks | 2 | Small red apples, chopped with skin |
| | | 1 | Seeded mango cut into 1/4" pieces |
| | | 2 2/3 | Lime juice |
| | | 2 tsp | Chili sauce |
| | | 2 cups | Chopped romaine lettuce |
| | | 2 tsp | Toasted sesame seeds |
| | | 1. | Marinate steak covered in the refrigerator for about 1 hour. |
| | | 2. | Mix apples, lime juice and chili sauce and let set. |
| | | 3. | Broil steak on a rack until charred on each side. |
| | | 4. | Place 1/2 cup romaine on plate |
| | | 5. | Cut steak on a bias into 1/4" thick slices, lay on top of greens. |
| | | 6. | Spoon fruit mixture on top of steak. |
| | | 7. | Garnish with sesame seeds |



Approximate nutrient analysis per serving: Calories: 126 Percentage of calories from: Protein: 5% Fat: 17% Carbohydrates: 78% Protein: 1.5g Fat: 2.4g Carbohydrates: 24.6g Cholesterol: 0mg Sodium: 602mg

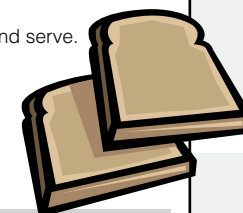
Cajun Turkey Club



Number of portions: 4 Portion size: 1 sandwich

- | | | | |
|-----------|----------------------------|----|--|
| 3/4 lb. | Perdue cajun turkey sliced | 1. | Toast bread on one side. |
| 12 slices | Whole wheat lite bread | 2. | Spread cajun mayonnaise on every slice of bread. |
| 8 slices | Turkey bacon | 3. | Cook turkey bacon. |
| 8 slices | Tomato | 4. | Layer 3 oz. turkey with 2 slices lettuce on first layer of each sandwich. |
| 8 leaves | Leaf lettuce | 5. | Put 2 slices of bacon and 2 slices of tomato on second layer of each sandwich. |
| | | 6. | Top with last slice of bread, toothpick and serve. |

Cajun Mayonnaise
1 tsp Cajun seasoning
5 oz. Fat free mayonnaise



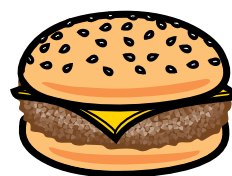
Approximate nutrient analysis per serving: Calories: 223 Percentage of calories from: Protein: 52% Fat: 23% Carbohydrates: 22% Protein: 29g Fat: 5.6g Carbohydrates: 12.5g Cholesterol: 67mg Sodium: 633mg

Grilled Veggie Soy Burger



Number of portions: 5 Portion size: 1 sandwich

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|-------|---|----|---|
| 5 | Garden Burger Flame Grilled Soy Burgers | 1. | Grill veggie burgers until cooked. |
| 5 | High dome buns | 2. | For each sandwich, place veggie burger in high dome bun with 2 slices of tomato and 1 oz. shredded lettuce and 1 oz. fat-free dressing. |
| 1 1/2 | Sliced tomato (10 total slices) | 3. | Half bun for presentation. |
| 5 oz. | Shredded lettuce | | |
| 5 oz. | Fat-free ranch dressing | | |



Approximate nutrient analysis per serving: Calories: 376 Percentage of calories from: Protein: 27% Fat: 18% Carbohydrates: 55% Protein: 25.4g Fat: 7.6g Carbohydrates: 51.3g Cholesterol: 0mg Sodium: 1019mg

Chocolate Brownie Pudding



Number of portions: 9 Portion size: 3 oz. pudding & 1 Tbsp whip cream

- | | | | |
|----------|--------------------------|----|--|
| 3/4 cup | Apple sauce | 1. | Preheat oven to 325°. |
| 3 Tbsp | Melted butter | 2. | Mix together apple sauce, butter, egg whites and vanilla. |
| 1/4 cup | Egg whites | 3. | Mix together dry ingredients and slowly mix into wet ingredients until well blended. |
| 1/2 Tbsp | Vanilla | 4. | Spray pan with cooking spray, then pour mixture into pan or 4 oz. soufflé cups 3/4 full. |
| 1/2 cup | Cocoa | 5. | Bake 30 minutes or until center is slightly sticky and edges are dry. |
| 1/8 tsp | Salt | 6. | If cutting, let cool completely. |
| 1 cup | Brown sugar, packed | 7. | Serve each 3 oz. portion with 1 Tbsp strawberries and 1 Tbsp fat-free topping. |
| 2 Tbsp | Walnuts, chopped | | |
| 2/3 cup | Strawberries, sliced | | |
| | Fat-free whipped topping | | |
| | Cooking spray | | |



Approximate nutrient analysis per serving: Calories: 172 Percentage of calories from: Protein: 2% Fat: 26% Carbohydrates: 72% Protein: 1.5g Fat: 5.1g Carbohydrates: 32g Cholesterol: 11mg Sodium: 95mg



HealthierNASA by Choice



Recipes for Healthy Living

Grilled Flank Steak w/Balsamic Glaze



Number of portions: 6 Portion size: 4 oz.

| | |
|---------|------------------------|
| 1 pint | Port |
| 1 pint | Dry white wine |
| 6 5oz. | Flank steaks |
| 3 Tbsp | Olive oil |
| 6 | Cloves garlic, chopped |
| 1/4 cup | Balsamic vinegar |
| | Salt, to taste |
| | Pepper, to taste |

1. Grill steak until just cooked.
2. In a sauce pan, add port wine, white wine, balsamic vinegar, olive oil and garlic. Cook until reduced by half.
3. Season steak with salt and pepper.
4. Top steak with sauce and serve.



Approximate nutrient analysis per serving: Calories: 348 Percentage of calories from: Protein: 46% Fat: 42% Carbohydrates: 12% Protein: 31.4g Fat: 12.8g Carbohydrates: 8.3g Cholesterol: 58mg Sodium: 384mg

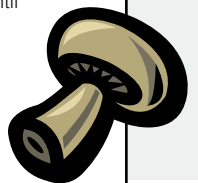
Chicken Piccata



Number of portions: 6 Portion size: 4.5 oz.

| | |
|-----------------|------------------------------------|
| 2 lb. (6 5 oz.) | Chicken breasts, boned and skinned |
| 1 1/2 | Garlic cloves, chopped |
| 1 1/2 cup | Fresh white mushrooms |
| 1/2 cup | White wine |
| 1 1/2 Tbsp | Fresh lemon juice |
| 1 Tbsp | Parsley |
| 1/2 cup | Chicken stock |
| 1 tsp | Corn starch |
| | Cooking spray |

1. Heat non-stick pan and spray with cooking spray.
2. Brown chicken breast on both sides. Remove from pan and keep warm.
3. Re-spray pan and cook garlic and mushrooms until tender.
4. Return chicken to pan, add stock, wine, corn starch and lemon juice. Simmer for 7-10 minutes or until cooked, stirring occasionally.
5. Sprinkle with parsley and serve.



Approximate nutrient analysis per serving: Calories: 169 Percentage of calories from: Protein: 81% Fat: 14% Carbohydrates: 2% Protein: 34.4g Fat: 2.6g Carbohydrates: 2g Cholesterol: 84mg Sodium: 106mg

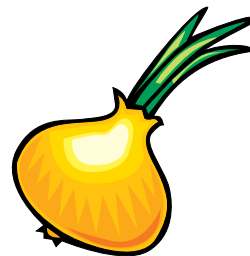
Blanco y Blanco



Number of portions: 6 Portion size: 5 oz.

| | |
|----------|------------------------|
| 1/4 lb. | Garbanzo beans |
| 1 Tbsp | Olive oil |
| 1 | Clove garlic, minced |
| 2 Tbsp | Fresh basil, chopped |
| 1/2 lb. | Plum tomatoes, diced |
| 1/2 Tbsp | Red wine vinegar |
| 1 Tbsp | Grated parmesan cheese |
| 6 oz. | Penne rigate, cooked |
| | Pepper, to taste |
| | Salt, to taste |

1. Mix together oil, garlic, basil and vinegar.
2. Fold in beans, pasta and tomato.
3. Add cheese, season with salt and pepper.



Approximate nutrient analysis per serving: Calories: 7 Percentage of calories from: Protein: 14% Fat: 28% Carbohydrates: 58% Protein: 25g Fat: .2g Carbohydrates: 1g Cholesterol: 0mg Sodium: 2.2mg

Baked Onion Rings



Number of portions: 6 Portion size: 12 rings

| | |
|----------|---|
| 3 | Large Vidalia onions, precut plain uncoated, refrigerated |
| 1/4 cup | Egg whites |
| 1/4 cup | Flour |
| 1/2 cup | Ground corn flakes or Japanese bread crumbs |
| 1/4 tsp | Garlic powder |
| 1/4 Tbsp | Onion powder |
| | Salt, to taste |
| | Cooking spray |

1. Preheat oven to 475°
2. Heat baking sheet sprayed with cooking spray.
3. Mix cornflakes with onion powder, garlic and salt.
4. Dip onion rings into flour, then egg whites, then corn flake mix.
5. Place onion rings on hot baking sheet and spray with cooking spray.
6. Bake until golden brown.



Approximate nutrient analysis per serving: Calories: 117 Percentage of calories from: Protein: 13% Fat: 19% Carbohydrates: 68% Protein: 4g Fat: 2.6g Carbohydrates: 21g Cholesterol: 0mg Sodium: 162mg

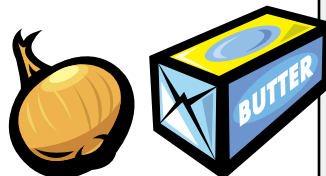
Wild Rice Pilaf with Cranberries



Number of portions: 5.5 Portion size: 3 oz.

| | |
|------------|--------------------------|
| 4 oz. | Wild rice, dry |
| 4 oz. | Dried cranberries |
| 2 oz. | Medium dry sherry |
| 1 1/2 Tbsp | Butter |
| 1/2 | Small onion, diced |
| 4 cup | Low sodium chicken stock |
| 1/2 tsp | White pepper |

1. In a sauté pan, sauté onions in butter for 2 minutes, add sherry.
2. Add stock and rice, bring to a boil.
3. Add cranberries and white pepper.
4. Cover tightly and cook in a 325° oven until the wild rice is tender and has absorbed all the liquid, 50-55 minutes.



Approximate nutrient analysis per serving: Calories: 200 Percentage of calories from: Protein: 20% Fat: 18% Carbohydrates: 62% Protein: 10g Fat: 4g Carbohydrates: 31g Cholesterol: 6.2mg Sodium: 82mg

Apple Crisp



Number of portions: 5 Portion size: 6 oz.

| | |
|----------|---------------------------------------|
| 1 lb. | Apples, unpeeled and sliced* |
| 2 Tbsp | Apple juice concentrate, thawed |
| 1 tsp | Lemon juice |
| 3 oz. | Flour |
| 1 tsp | Cinnamon |
| 1/2 tsp | Allspice |
| 1/2 tsp | Cloves |
| 2 oz. | Margarine |
| 1/3 oz. | Rolled oats, preferably quick-cooking |
| 2 oz. | Brown sugar |
| 2/3 Tbsp | Margarine |

1. Preheat oven to 350°. Put sliced apples in a large bowl and toss with apple juice concentrate and lemon juice. Spread apples in two 12 x 20-inch pans and cover with foil. Bake at 350° for 40 minutes.
2. Mix flour and spices together. Cut in 2 oz. margarine until crumbs form. Add 1 1/2 oz. brown sugar, oats and mix well. Remove foil, sprinkle apples with crumbs and continue to bake uncovered for an additional 30-35 minutes until apples are tender.
3. Melt 2/3 Tbsp margarine, add remaining brown sugar to top and bake for 10 minutes.

*Golden delicious recommended

Approximate nutrient analysis per serving: Calories: 206 Percentage of calories from: Protein: % Fat: % Carbohydrates: % Protein: 1.7g Fat: 5.8g Carbohydrates: 39g Cholesterol: 0mg Sodium: 72mg

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