While to most of us the skin is not immediately identifiable as an organ system, it is in fact the largest organ of the body. We typically think of organs as delicate internal machines performing vital functions with the skin as the outer coat, similar to the shell of a car housing the engine. However, the skin is our vital link to the outside world and its proper functioning is critical to our interaction with our environment.

The skin has three layers. The first layer, the epidermis, is very thin and regenerates roughly once a month. It has a tough outer layer of “dead” cells which is slowly sloughed and forms scales when it is shed in abundance in conditions such as winter itch, eczema and psoriasis. The epidermis is also home for some immune cells and the melanocytes which give us skin color. The second layer, the dermis, varies in thickness depending on the location. On the eyelids, the dermis may be only several hundredths of an inch thick whereas on the back it may be more than a quarter inch thick. The dermis houses the blood vessels, nerves, hair follicles, and oil and sweat glands. It gives the skin its form and elasticity. Below the dermis is our subcutaneous fat layer which serves to insulate, pad, and supply some energy.

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Skin, Our Largest Organ, Presents and Protects Us
Suguru Imaeda, MD
Chief, YHP Dermatology Department

New Treatments, Preventive Care, Can Curb Osteoporosis
Joann Knudson, MD
Chief, YHP Obstetrics & Gynecology Department

Osteoporosis literally means “porous bones.” Although the disease is sometimes visible in the “dowager’s hump,” it is more often invisible until a fracture occurs. The most common fractures seen with osteoporosis are of the hip, the spine and the wrist. Spinal fractures can lead to loss of height, curvature of the spine (kyphosis) and back pain. Hip fractures can have more dire consequences; 12-20% of individuals who suffer a hip fracture die shortly after the fracture, usually from complications such as pneumonia or blood clots to the lung.

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LIVING WITH DIABETES

The Office of Health Promotion and Education will present a five-session series entitled LIVING WITH DIABETES on Tuesday evenings from 5:15 - 6:45, in room 405 of YUHS (17 Hillhouse Avenue). The series is free and open to the Yale community and their friends and families.

March 28. What is diabetes? Silvio Inzucchi, MD
April 4. Nutrition principles for managing diabetes. Linda Bell, MS, RD
April 11. Treating diabetes: medication, exercise, lifestyle changes. Linda Ryan, APRN, CDE
April 18. Keeping an eye on your diabetes. Elizabeth Popoff, APRN, CDE
May 2. Dealing with real life situations. Elizabeth Popoff, APRN, CDE & Linda Ryan, APRN, CDE

For more information and to register please call 203-432-1826.
Skin Preserves and Protects

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Our skin does more than serve as a barrier to keep the inside in and the outside out. This tough pliable covering also protects the body from physical and chemical assaults. In addition, skin plays a major role in regulating body temperature and in sensory reception. Furthermore, the skin is an important location for immunologic surveillance against germs, allergens and irritants which try to gain entrance to the body. And there is a significant cosmetic and social importance to the skin for our self-perception and our interactions with others.

The skin’s proper functioning depends on the intactness of the three layers. The body is composed of 70-75% water. The outermost layer of epidermis, however, typically has only 35% water. Approximately a pint of water is lost daily through the skin. We lose additional water from respiration and excretion. Therefore, it is important to drink at least eight 8-ounce cups of water daily. Skin compromised by seasonal dryness or illness loses even more water. For example, it is not unusual for those with skin conditions such as psoriasis or eczema to lose 10-12 times more water than average from their skin, requiring a significantly greater daily water intake and diligent lubrication.

Because it is not possible to put moisture into the skin, the trick is to prevent excessive loss of moisture. Normally, the skin has oils which help to maintain the outer layer of epidermis. When we use harsh cleansers or soaps, or bathe excessively (more than twice daily), the oils are stripped away and the skin dries out, becoming scaly. Moisturizers primarily coat the skin to prevent further fluid loss through the damaged dry skin; as our skin becomes drier, we must apply greasier emollients.

Drier skin is also a natural consequence of aging. Aging gradually thins the deeper layers of skin, while decreased sweating and oil production allow greater water loss. This drier skin bruises more easily and heals more slowly. In addition, there is less elasticity from a combination of aging and sun exposure which causes wrinkling and sagging. The myriad of cosmetic creams, lotions, and potions available in our booming “cosmeceutical” industry claim to perform miracles but provide only minimal superficial benefit. The best intervention is prevention: adequate hydration and preventing excessive drying and sun exposure.

After our genetic makeup, degree of sun exposure is the main factor in compromising the way our skin looks. Sun light is composed of damaging ultraviolet irradiation, warming infrared irradiation, and visible light. Both ultraviolet A (UVA) and ultraviolet B (UVB) damage the skin. Ultraviolet C (UVC) is primarily filtered out by the ozone layer. While UVB penetrates only into the superficial dermis, UVA penetrates deeper and is responsible for the majority of sun-induced premature aging. The damaged skin loses elasticity, gets discolored and begins to form small bumps reminiscent of plucked chicken skin. Both UVA and UVB cause skin cancers which result in further disfigurement, both before and after treatment.

Use sunscreens which block both UVA and UVB. For daily use, moisturizers containing an SPF (sun protection factor) of 15 are adequate whereas sunscreening lotions are necessary for prolonged outdoor activities. Remember to reapply sunscreen frequently since it gets washed off with sweating and swimming.

Skin maintenance rather than skin repair should be the goal. With proper hydration, good nutrition, and sun awareness, we can maintain the health of the body’s largest organ.

Osteoporosis

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While we usually do not think of bone as a growing tissue, our bone actually continues constantly to remodel itself, even after we have reached our adult height. However, the growth of new bone mass peaks between ages 25-35 and thereafter we start slowly (about 0.1-0.2% per year) to lose bone mass. When women enter menopause at around age 50 their rate of bone loss accelerates to around 1.5%-3% per year for several years. After menopause, the rate of loss slows down again until much later in life, when it once again increases, likely due to decreased calcium absorption by the intestines.

Women, particularly thin, small-framed women, are four times as likely as men to develop osteoporosis. Factors besides gender which
from the desk of

PAUL GENECIN, MD
DIRECTOR, YALE UNIVERSITY HEALTH SERVICES

As I reflect on recent improvements at Yale Health Plan, I have been focusing on two postulates about our members’ expectations. The first is that members expect our health plan to provide excellent care and to look continually for ways to improve treatments and clinical outcomes. My second is that few of us value our health care experiences, whatever their clinical quality, if they are not accompanied by excellent service. At Yale Health Plan, we are working towards a culture in which excellent service is an integral part of your experience at 17 Hillhouse Avenue.

Consider the open access project in Obstetrics and Gynecology, which began last spring, and the Access in Internal Medicine (AIM) project. Both of these represent breakthroughs in our ability to provide excellent care in a time frame that meets your needs. I am proud that after a year the open access appointment system in Ob/Gyn is running smoothly, with appointments for routine care available with only a few days’ notice. There are many other benefits to the new system, some of which are less obvious to our members. I am particularly pleased by the satisfaction our Ob/Gyn team expresses in being able to respond quickly to members’ needs. They are justifiably proud of their work environment, in which timely service and excellent clinical quality have proven to be perfectly compatible.

The AIM project is more recent, having begun in January. In Internal Medicine, we are defining good service as the ability to offer any member a conveniently timed appointment with his or her chosen clinician. Our goal is to offer immediate appointments in the case of illness, and appointments within days for routine care. As patients, none of us wants to wait for many weeks, or be forced to see an unfamiliar clinician, or settle for off-hours walk-in care. Our Internal Medicine team has every reason to reflect proudly on the tremendous enhancement that this ambitious project represents.

In the near future we will be announcing a number of other important enhancements in access and service. As always, I welcome your suggestions.

Coordinated Care Central to YHP Oncology Services
RHEA HIRSHMAN
Editor

According to Arthur Levy, MD, there have been “tremendous changes” in cancer therapies since 1990, when he and partner Leonard Farber, MD, came to YHP as consulting medical oncologists. New drugs, devices and drug protocols, he notes, “have helped us dramatically in taking care of patients.”

But equally essential to the care of YHP members diagnosed with cancer is the coordination of the variety of services they may need, and help with the array of decisions they may suddenly face. “You take care of the whole patient,” Levy says. To Molly Meyer, APRN, that is the essence of her work with people with cancer. Meyer, who has a regular practice in Internal Medicine and Undergraduate Medicine, is the on-site coordinator for YHP’s oncology patients, many of whom also see her for primary care.

Meyer says, “Many cancer patients, during the first few weeks after diagnosis are meeting new clinicians, and getting a variety of opinions. It’s vital to have someone help steer them through the maze.” For most YHP members with cancer, whether or not they see her for primary care, Meyer helps to set up the appointments needed before surgery, as well as post-surgery consultations and appointments for radiation therapy (done at Yale New Haven Hospital). She also orders and keeps track of ongoing lab work, and may also set up appointments for essential ancillary services, such as nutrition and physical therapy.

“All patients,” says Levy, “unless it’s an emergency, will be seen first by their primary care clinician, who will provide referrals. If the cancer is treatable by surgery they may be referred right to a surgeon. Even in surgical situations, Leonard Farber or I will sometimes see the patient first to guide them, because there are an increasing number of options for combining surgery, radiation and chemotherapy. Ongoing surveillance and therapy, whether or not surgery is involved, is done by one of us.”

Chemotherapy, if needed, will almost always be administered on an outpatient basis at the Inpatient Care Facility (ICF) under the guidance of Kathy Schwab Wardell, RN. Schwab Wardell, one of three nurses who administers chemotherapy, also coordinates the ICF’s oncology suite and functions as a
Q. What nutrition services does YHP offer?
A. Nutrition services at YHP include individual outpatient nutrition counseling, group nutrition education classes, Inpatient Care Facility (ICF) consultations and the provision of current educational materials on nutrition.

Q. How does someone get in to see you?
A. Individual nutritional counseling is available by referral from the primary care clinician. For general questions related to nutrition and health (i.e. not related to an individual’s specific medical situation), I can respond to e-mail queries. The address is linda.bell@yale.edu.

Q. What kinds of conditions might generate a referral?
A. Some common ones are high cholesterol, high blood pressure, and gastrointestinal problems such as Crohn’s disease, diverticulitis, and irritable bowel syndrome. I can help people with food allergies and sensitivities rework their diets. In-depth nutritional counseling may be needed for complex issues, as with the diet and lifestyle changes that might be involved in developing a meal plan for someone with diabetes or for overweight children. People also come here with specialized concerns, like getting adequate nutrition on a vegetarian diet.

Q. Is there a limit to the the number of sessions?
A. There is not a specific limit, but many nutritional concerns can also be addressed by the member’s primary care clinician. The number of sessions needed is determined on an individual basis.

Q. What educational programs are available?
A. There is an annual diabetes class here at the health plan, conducted by clinicians from a range of specialties. I go off site to the graduate schools, to sports teams and other organizations to do presentations on issues of concern to the group involved. I present nutrition information as part of other series, such as the one on osteoporosis. We also have printed materials on a variety of subjects.

By answering your questions, this column will help you get the most out of your YHP membership.

Send your questions to:
Member Services Q & A, Yale Health Plan, 17 Hillhouse Ave., P.O. Box 208237 New Haven, CT 06520–8237.
We’ll get them answered by someone “in the know.”
Osteoporosis

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Increase risk for osteoporosis include: lack of calcium, lack of exercise, family history of osteoporosis, cigarette smoking, alcohol use, and use of certain medications particularly steroids and some diuretics. Also, the Caucasian and Asian populations are more prone to osteoporosis than African Americans.

Osteoporosis can be easily detected by tests called absorptiometry or densitometry, which use a very low dose energy source to measure bone density.

Since those with low peak bone mass are at the highest risk of osteoporosis later in life, reducing the risk of osteoporosis means building bone mass when we are young and holding on to it as we age. It is critically important that young people get adequate calcium and other nutrients and are physically active in order to achieve their maximum peak bone mass. For older people exercise, besides strengthening bones, also helps with coordination, thereby helping reduce the risk of falls that often lead to fractures.

If osteoporosis is diagnosed, there are several treatment options. For menopausal women, hormone replacement therapy is often recommended as it has been shown to increase bone mass. Another treatment is raloxifene (Evista), a selective estrogen receptor modulator (SERM). This is a class of drugs which mimic some of the actions of estrogen. Raloxifene builds bone without affecting the endometrium (the lining of the uterus) and breast tissue. A non-hormone alternative is the bisphosphonates, including alendronate (Fosamax). This medication can cause irritation of the esophagus, but newer bisphosphonates with fewer side effects are expected to be released soon.

Although some individuals are at higher risk than others for osteoporosis, preventive measures can help everyone minimize the danger of the disease. Stay physically active, eat a diet that includes calcium sources and/or take calcium supplements, get adequate Vitamin D. As always, discuss your concerns about osteoporosis with your clinician.
BOOK REVIEWS

Reviewed by Carole T. Goldberg, Psy.D. 
Department of Mental Hygiene
and Linda Bell, MS, RD
Department of Health Promotion and Education

The Yale University School of Medicine Patient’s Guide to Medical Tests

Barry Zaret, MD, ed.
Houghton Mifflin Company, 1997

Provides detailed descriptions of the most common diagnostic procedures.

Explains why the test was ordered as well as what should be done to maximize the effectiveness of the procedure.

The Body Betrayed: A Deeper Understanding of Women, Eating Disorders, and Treatment

Kathryn J. Zerbe
Gurze Books: California, 1995

Addresses the complex causes and treatments of eating disorders. Sensitive coverage of topics such as athletics, body image, chemical dependency, nutrition, sexual abuse, obesity and more.

The Body Project: An Intimate History of American Girls

Joan Jacobs Brumberg

Brumberg states that girls today grow up believing that “good looks” rather than “good works” are the highest form of female perfection. Through images from 1830 to the present, she chronicles the shift from Victorian concerns with inner beauty to the modern focus on outward appearance. Compassionate, well written, and very readable.

The Golden Cage: The Enigma of Anorexia Nervosa

Hilde Bruch, MD.

The author is one of the pioneers in understanding and treating eating disorders. This seminal work, written at a time when the disorder seemed relatively rare, offers a vivid and moving account of this devastating illness.

Making Peace With Food

Susan Kano & Linda Bourke
Harper & Row New York, 1989

Written from a practical point of view and with a sense of humor. Offers help (including self tests) in identifying feelings related to food and lifestyle choices.

The Obsession: Reflections on the Tyranny of Slenderness

Kim Chernin

A passionate and articulate cultural criticism of the increasing demand that women be thin. It explores the meaning of food and its rejection and includes thought provoking discussions of the “reasons men have encouraged this obsession and women have embraced it.”

Surviving an Eating Disorder: Strategies for Family and Friends

Michele Siegel, Ph.D., Judith Brisman, Ph.D., & Margot Weinshel, M.S.W.

Newly updated readings as well as suggested lists of support organizations and treatment options. A clear, sensitive, and practical resource for understanding and dealing with a loved one with an eating disorder.

Get up, get out

It’s time to get out into the fresh air with YHP’s spring walking program. Larry Matthews, Associate Director of Sport and Recreation Athletics, will lead the program of warm-up exercises and progressive distance walking. Join us every Tuesday and Thursday between March 21 and April 21 from 12:10-12:50, rain or shine, in front of the University Health Services Center, 17 Hillhouse Avenue. Please wear comfortable clothing and good walking shoes. No registration is required. For more information, call the Office of Health Promotion and Education at 203-432-1892.
healthy ideas

NATIONAL NUTRITION MONTH® HIGHLIGHTS FOOD AND FITNESS

Begun in March 1973 by the American Dietetic Association, “National Nutrition Week” became a month-long observance in 1980. This year’s theme is the importance of nutrition and physical activity as key components for a healthy lifestyle.

Healthful eating fuels physical activity and gives you a better chance for extending your life and improving its quality. Good nutrition helps ensure a healthy pregnancy for both mother and child. Well-nourished and active children and teens grow, develop and learn better. Healthful eating and active living for adults and seniors helps improve mood, increase energy, reduce stress and reduce risk for diseases such as cancer, heart disease and diabetes. Being fit at any age can also help you look and feel your best, and give you the physical strength and endurance to do what you want to do.

Food and physical activity choices are personal. Every time you look up, there seems to be a new diet or exercise book exhorting you to follow its philosophy. While general nutrition guidelines are useful, each person is a little different. Being well-nourished means getting enough of the nutrients your particular body needs, and eating portions of foods just right for you.

**Food is a source of pleasure.** The taste of food adds pleasure to eating – especially if you eat a greater variety and learn how to include your favorites in an overall healthful eating model.

THE SUM OF THE PARTS

Many numerical measurements indicate how our bodies function. A few commonly-used ones are described below.

**Blood pressure.** Blood pressure is identified with two numbers. The **systolic** (upper) measurement is the highest pressure exerted within the blood vessels during the contraction of the left ventricle of the heart. The **diastolic** (lower) measurement is the resting phase of the heart cycle, the time between the heart’s contractions. This resting number is the minimum resting pressure within your circulatory system; if it is higher than normal for your age, your blood vessels are under too much strain. High blood pressure is a significant factor in coronary artery disease. So have your blood pressure checked yearly. The upper number should not be greater than 140 and the lower number should be under 90.

**Cholesterol.** Two components of blood cholesterol number are HDL ("good" cholesterol) and LDL ("bad" cholesterol). HDL, or high density lipoprotein, seems to take the excess cholesterol from the blood vessels and deposit it in the liver. LDL, or low density lipoprotein, stays in the blood vessels, contributing to atherosclerotic plaques, the substance that causes blood vessel blockages. These blockages can contribute to heart attacks and strokes. A healthy total cholesterol reading should be 200 or less.

**Hemoglobin and hematocrit.** These are two important ways of evaluating red blood cell function. The hematocrit is the percentage of red blood cells as a part of the total blood volume. Normal adult ranges are usually 35-45% for women and 39-49% for men. The hemoglobin is a measurement of the “oxygen carrying” molecules of the red blood cells. Normal ranges are 12-15 for women and 13-17 for men. Low readings of either may indicate various types of anemia; in addition, all organs need adequate oxygen for optimum function. Readings that are too high may also indicate health problems.

YHP Oncology Services

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staff nurse. She, along with Meyer and others, provides patients with education about integrating chemotherapy into their lives.

Chemotherapy often raises issues such as potential side effects, nutrition, and monitoring use of over-the-counter medications. Schwab Wardell says, “I meet with patients to answer their questions. Family members and friends often come with the patient and they have their own questions and needs. We encourage them all to talk with us.” Family members and friends may also stay in the ICF with patients who need in-patient chemotherapy or those who have been transferred there after surgery to allow for a smooth transition between hospital and home.

In addition to the services and support YHP members receive from clinical staff, there is also a weekly support group called Life Options open to all adult YHP members with cancer and facilitated by Mona Felts, MSW. Meyer notes that in addition to this structured group, “...there are a lot of unofficial support groups – there’s a tremendous amount of interaction among patients. We’ll also hook up newly diagnosed patients with others who volunteer to act as resources.”

“We try to help in any way we can,” Levy says, “so that people can get on with their lives. This can mean anything from discussing an appropriate vacation to writing letters to employers asking for flexibility with hours or duties.” Meyer adds, “And patients continue to have regular medical needs unrelated to cancer. The key is for everyone who is treating the patient – primary care clinician, specialists, oncology clinicians – to communicate and keep informed. Because of our size and our set-up, we can do that. We can work in partnership with our patients to maintain the quality of their lives.”
Early Pregnancy Class
Held on the 2nd Wednesday of each month from 10:30–11:30 in room 405 for YHP members. To register, call the Ob/Gyn Department at 203-432-0222 or stop by the appointment desk. We encourage you to bring a supportive person.

Weight Watchers at Work
Mondays, 12:15–1:00 in room 405. You can join any time. For information, call 203-432-1892.

Blood Pressure Screenings
Tuesdays and Thursdays from 10:00–11:00 in room 406. Open to the Yale community free of charge, by referral or on a walk-in basis. For info, call 203-432-0093.

Health Risk Assessments
Offered to the entire Yale community on the first Wednesday and Thursday of the month from 2:00–3:00 in room 406. Free. For more information, call 203-432-0093.

Post-partum Reunion Classes
Held on the 3rd Friday of each month from 10:00–11:30 in room 405. Please bring your new babies to this great support network for all new moms! Conducted by Wendy Madore, RNC. Call the Obstetrics/Gynecology Department (203-432-0222) to register.

Adult CPR Classes
Adult CPR classes are held monthly. For information, call 203-432-1892.

Yale Health Plan Cancer Support Group
Life Options is a support group for adult YHP members who have been diagnosed with cancer, regardless of type of cancer or stage of disease. The group meets weekly with a facilitator. There are three 15-week programs each year. Group members can enroll in consecutive series of meetings. Funded partially by the Edith S. Hallo Fund and by a small weekly fee charged to each participant. To enroll or for more information, contact the facilitator, Mona Felts, MSW, at 203-432-0290.