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ROUNDS

HARTFORD HOSPITAL'S WELLNESS MAGAZINE



Brain Waves Between the Sexes

While it's no surprise that a man and a woman often hear two different things, did you know the reason is simple biology? Neuroimaging studies show that men and women process language differently. In women, neurons (nerve cells) on both sides of the brain activate when they listen, while men only light up one side. Both men and women listen to single words in the same way, but unlike men, women use both sides of the brain to interpret whole sentences.

Men may have an advantage when it comes to exiting a maze, though. In a virtual reality simulation, both men and women use the right hippocampus to figure out how to escape. Men also use the left hippocampus for the task, while women use the right prefrontal cortex, an area linked to memory retrieval. Women seem to rely on landmarks to navigate, while men use compass directions.

Males typically have twice as many neurons as females in the cerebral cortex, the gray matter responsible for many "higher-order" functions. Women, however, appear to have twice as many connections between neurons as men, giving them equivalent neural processing.

While women's brains are smaller than men's, they have more gray matter. In adolescence, testosterone seems to cause males to increase their white matter. Gray matter

allows us to think, while white matter transfers information to distant regions. Women typically outperform men in verbal tasks, while men excel at spatial tasks—yet both sexes do equally well on intelligence tests.

HEALTH TIPS



Veggie Virtues

Your mother was right when she told you to eat your vegetables. The National Cancer Institute says blue and purple fruits and vegetables—everything from blueberries to eggplant—contain compounds that may lower your risk of cancer.

Crucifers and leafy green vegetables contain phytochemicals believed to trigger the body's cancer-fighting defenses. Cruciferous vegetables include arugula, bok choy, broccoli, broccoli rabe, brussels sprouts, cabbage (red and green), cauliflower, kale, and radishes, among others. The National Cancer Institute ranks broccoli first in cancer-fighting potential. When buying leafy green vegetables, look for smaller-leaved plants, which tend to be more flavorful.

Pigments and pungent flavors often signal phytochemicals that help detoxify the body, combat tumor growth, and stimulate defensive genes. The antioxidant lutein is found in spinach, broccoli, romaine lettuce, kale, green peas, brussels sprouts, cabbage and Swiss chard. The beta carotene in cabbage protects against coronary disease, ulcers and gastrointestinal disorders, while red cabbage contains cancer-fighting lycopene.

According to a recent study published in the *Journal of Nutrition*, the anticancer compound sulforaphane blocks the growth of late-stage breast cancer cells. In the lab, the naturally occurring plant chemical—found in broccoli, brussels sprouts and kale—stopped malignant cell growth by disrupting cellular components called microtubules. No one knows whether eating broccoli and other cruciferous vegetables can deliver enough of the compound to block breast cancer cells in the body.

The Proceedings of the National Academy of Sciences reports that sulforaphane can also protect eye cells from damage caused by ultraviolet light, which can lead to an increasingly common condition called age-related macular degeneration (AMD). As individuals age, their eyes grow less efficient at eliminating oxidants, a major cause of AMD. The leading cause of blindness among the elderly, AMD afflicts an estimated 30 million people worldwide, a number expected to double by 2030.

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Hartford Hospital's Wellness Magazine

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PHYSICIAN PROFILE

Frances B. Gurtman, M.D.

Frances B. Gurtman, M.D., a primary care physician, is Board-certified in internal medicine. After graduating from Rutgers Medical School in 1982, she did her internship and residency in medicine at Hartford Hospital. Since 1996, she has been medical director at the Elmwood office of the Hartford Medical Group, now located in light and spacious offices on South Main Street in West Hartford. Last year, about 2,500 patients a month—a total of more than 30,000 patients—visited the Elmwood branch of Hartford Medical Group, one of eight medical offices in the Greater Hartford region.

The mother of two boys, she enjoys hiking, kayaking, swimming, skiing and tennis. “I like working as a primary care physician because I enjoy getting to know my patients and their families,” says Dr. Gurtman. “It’s important to know the whole person when managing someone’s disease, whether it’s heart disease or diabetes.”



Flu Shot Flurry, Winter Worry

Experts Warn Pandemic Outbreak May Be Looming



As the weather chills and the usual seasonal outbreak of influenza strikes the Northern Hemisphere, physicians prepare for an onslaught of respiratory disease. This year is different, however. The flurry of anxiety over a shortfall of 46 million flu shots has sparked fears of a widespread outbreak.

Because of this year’s vaccine shortage, only high-risk groups—the chronically ill or elderly, pregnant women and children 6 to 23 months—should be vaccinated. Alternatives include nasally administered vaccine and anti-influenza medications such as Tamiflu. The inhaled FluMist vaccine is only available to those age 5 to 49 in good health and not pregnant. “Children under two get hit severely,” explains Brian Cooper, M.D., chief of the Division of Infectious Disease at Hartford Hospital. “Kids are common vectors for the spread of flu because they shed the virus longer.”

“What’s worrisome about flu is the fact that you’re contagious for 24 hours before your symptoms begin,” adds primary care physician Frances B. Gurtman, M.D. “Signs of flu include headache, body aches, fever, fatigue and cough. Call your primary care physician if your fever lasts more than three days, or if there is a

worsening of any chronic illness such as diabetes, lung disease or heart disease. Dehydration and pneumonia are possible complications—unfortunately, antiviral medications haven’t been proven to prevent these complications in high-risk patients.”

Experts warn of a looming worldwide outbreak, or pandemic, of flu. “People feel we’re a bit overdue,” says “Dr. Cooper. “The last pandemic occurred in 1968, though there were others in 1957, 1918 and 1892. There’s growing concern about the avian influenza strain H5N1, which had never been seen in humans until it suddenly jumped from chickens to people in Hong Kong in 1997. The World Health Organizations scrambled to slaughter poultry, stopping the outbreak until 2003. Now once again we’re seeing scattered cases of bird flu in East Asia.”

Since the virus is firmly established in the migratory bird population, officials worry that it will track the Asian flyways to Siberia and beyond. “The probable person-to-person transmission in Thailand raises fears of the virus mutating, acquiring the capability to spread between people and setting off a worldwide pandemic,”

warns Dr. Cooper. “Since no one has even partial immunity, mortality would be extraordinarily high.”

Even if Americans get a flu shot, it offers no

protection against novel strains of disease. “If a new flu strain appeared suddenly in the Western Hemisphere, vaccine supplies would likely be extremely limited,” says Dr. Cooper. “Quarantine probably wouldn’t work since flu spreads much too rapidly.”

Even in good years, flu can be deadly. The CDC says 152 children, 40 percent of whom were previously healthy, died last season from influenza or its complications. Every year, 200,000 Americans end up in the hospital and 36,000 die.

“Prevention is key,” says Dr. Gurtman. “If at all possible, everyone at high risk should be vaccinated. If you do get the flu, stay away from people at high risk of complications. Coughing or sneezing propels the virus up to three feet.”

Vaccine is available to protect against a dangerous bacterial pneumonia, a common complication of influenza. Pneumovax is a one-time shot for anyone 65 or older, as well as younger people with heart, lung, liver or kidney disease, diabetes or compromised immune systems.

Surgery for Morbid Obesity

Obesity is a serious public health problem in affluent countries worldwide. More than half of adults nationwide are overweight and an estimated 5 to 11 million are an alarming 100 pounds or more above their ideal body weight. According to the National Institutes of Health (NIH), an increase of only 20 percent above ideal body weight is the point at which excess weight becomes a health risk.

With no shortage of weight loss plans, why do so many people never seem to lose weight? The NIH found that medically supervised weight loss programs failed up to 98 percent of the time over a five-year period. Diet and exercise work for only 1 in 20 people.

“Patients don’t fail at losing weight, but they don’t maintain the weight loss in the long run,” says Darren Tishler, M.D., director of bariatric (gastric bypass) surgery at Hartford Hospital. “From an evolutionary standpoint the human body is good at storing calories. Every time people diet and then regain the lost weight, they get heavier.”

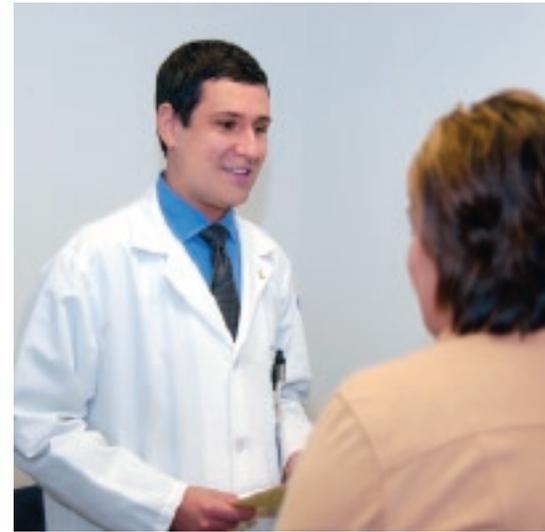
Hartford Hospital is now offering a surgical method of permanent weight reduction for morbidly obese individuals who have failed to slim down after repeated diet and exercise attempts, behavior modification or anti-obesity drugs. The typical patient is at least 100 pounds overweight and has at least two obesity-related health problems. Morbid obesity is a genetically linked, life-threatening disease. Clinically severe obesity brings medical problems that often improve with significant weight loss, including diabetes, hypertension, high cholesterol, cardiac disease, sleep apnea, osteoarthritis, heartburn and emotional problems.

The Roux-en-Y gastric bypass procedure is performed

laparoscopically through several small incisions. Dr. Tishler’s team uses minimally invasive techniques to create a small stomach pouch that empties directly into the small intestine and restricts the amount of food that can be eaten at any one time. Bypassing a portion of the gastrointestinal tract reduces the amount of nutrients the body can absorb. The resulting calorie reduction leads to dramatic weight loss.

Surgery alone does not guarantee success, however. Some patients “cheat” by drinking high-calorie milkshakes, snacking or skipping exercise. Patients must make a lifelong commitment to follow-up care, including nutrition classes, support groups, exercise and possibly, plastic surgery (see page 6).

“Most patients considering gastric bypass surgery are well-educated and motivated,” says Dr. Tishler. “Often they’ve experienced a ‘pivotal’ life event that spurs them to do something about their weight. Surgery is the only approach that provides consistent, permanent weight loss in patients with morbid obesity.”



Dr. Darren Tishler discusses bariatric surgery with a patient.

WHAT’S GOING AROUND...News & Breakthroughs

Sauce for Women, Too

Men began eating more spaghetti after a Harvard University study found that the antioxidant lycopene, abundant in tomatoes, reduced prostate cancer risk. Harvard researchers now say middle-aged women who consumed high levels of lycopene for five years—the equivalent of a quarter-cup of tomato sauce or three medium tomatoes daily—were 30 percent less likely to develop heart disease.

Enzyte Doesn’t Excite

The Center for Science in the Public Interest recently filed a complaint with the Federal Trade Commission about a nutritional supplement that claims to enhance sexual function. Enzyte and products with names like LibidoBlast and Eros Rx contain the herb yohimbe, which can cause sudden dangerous spikes in blood pressure.

Dunkin’ Do’s

Doctors caution that caffeine is not for everyone, especially those with high blood pressure and other cardiovascular risk factors. If you have diabetes, you shouldn’t drink coffee. In a recent study, Harvard researchers found that for those who don’t already have the disease, four or more cups of coffee a day may cut the risk of type 2 diabetes. Men who drank six cups daily were half as likely to develop type 2 diabetes; four cups cut women’s risk by 30 percent.

Fetal Flu

A mother’s bout of flu during the first half of pregnancy appears to increase her baby’s risk of developing schizophrenia later in life, say researchers at New York Psychiatric Institute. The study examined preserved blood samples taken between 1959 and 1966. The risk of developing the disorder rose seven-fold if the mom had the flu during the first trimester and three-fold during the second trimester.

ILLUMINATING HEART DISEASE

Hear disease is the leading cause of death for both men and women in the United States, accounting for nearly 40 percent of all fatalities. According to the Centers for Disease Control and Prevention, 64 million Americans are living with cardiovascular disease and 930,000 die of the disease each year.

More than 7 million cardiac SPECT (single photon emission computed tomography) scans are performed annually to diagnose coronary disease and assess chest pain. Now Hartford Hospital physicians are the first in Connecticut and only the second in New England to employ an advanced digital scanning technology called positron emission tomography (PET) imaging—already used for cancer diagnosis—to create detailed images of the heart. Studies have shown that PET has better diagnostic accuracy than SPECT, especially when findings are equivocal.

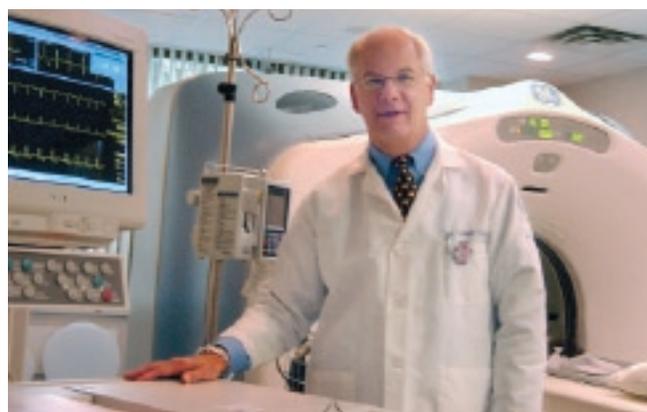
PET is a non-invasive diagnostic imaging technique that assesses metabolic activity in the body by measuring the uptake of a tiny amount of radioactive material into cells. Traditional imaging techniques produce images of the body's anatomy or structure rather than cellular activity. Although the radioactive material used for SPECT imaging persists in the body for up to six hours, the PET radiotracer disappears after only a minute and a half.

Hartford Hospital's Nuclear Cardiology Laboratory recently began PET cardiac perfusion imaging using the radiotracer rubidium. PET cardiac perfusion imaging offers several advantages over conventional SPECT imaging, including shorter procedure time, better image quality and improved diagnostic accuracy. The higher energy and shorter half-life of rubidium provide enhanced image quality with lower radiation exposure. Challenging patients,

particularly those who are obese, are particularly suited to the procedure.

"SPECT is a great procedure, but we're always looking for new and better diagnostic tools," says Gary V. Heller, M.D., FACC, director of Nuclear Cardiology at Hartford Hospital. "PET has had a huge impact on the care of patients with cancer, and many people throughout the hospital were anxious to spearhead efforts to apply the technology to cardiac care. Not only does the procedure offer better image clarity, but PET takes only about a half hour, compared with up to two and a half hours for SPECT."

PET imaging is especially appropriate for patients undergoing diagnosis and risk stratification for coronary artery disease. "The procedure is performed in the morning—patients are in before 9 and out by 10—so we can send results to referring physicians quickly," adds Dr. Heller. "The ability to distinguish single-vessel from multi-vessel disease is particularly important in helping clinicians make medical decisions when diagnosing coronary artery disease."



Dr. Gary Heller utilizes PET imaging technology for cardiology patients.

Jaw Jeopardy

Cancer patients taking bone drugs called bisphosphonates should avoid dental work during therapy to prevent bone damage in the jaw, warns the Food and Drug Administration and drug manufacturer Novartis. Cancer patients receiving Aredia and Zometa developed jaw problems after tooth extraction or invasive dental work. Many affected patients were on chemotherapy and corticosteroids in addition to the bone drugs.

Sneaky Sugar

Dieters avoid sugars to prevent weight gain, while sweets can be deadly for diabetics. Yet it's often difficult to spot different types of sugar on food ingredient labels, warns the U.S. Department of Agriculture. Foods that contain hefty amounts of sugar often list ingredients like sucrose, honey, syrup, corn sweetener, glucose, dextrose, high-fructose corn syrup, fructose, molasses, maltose, fruit juice concentrate or lactose.

Sunblock Someday?

A common antibacterial and antifungal ingredient found in mouthwashes and toothpaste appears to guard against skin cancer, according to the American Association for Cancer Research. Sanguinarine, an anti-inflammatory compound used to prevent gingivitis, is undergoing laboratory testing. Researchers at the University of Wisconsin theorize that sanguinarine prevents skin cells genetically damaged by ultraviolet-B radiation from advancing toward cancer.

Size Matters

Overweight men are likely to have lower-quality sperm, according to a Danish study published in the journal *Fertility & Sterility*. Sperm counts and motility were below normal in both obese and too-thin men. Meanwhile, Beth Israel Deaconess Medical Center researchers warn that severely overweight women often have irregular periods and lower ovulation rates, making it harder for them to get pregnant.

Why Hives?



Oddly enough, physicians often don't know what causes hives. When the cause is an allergic reaction to medication or shellfish, for example, the patient usually recognizes the link, but when the patient can't identify a single trigger, neither can the physician.

Hives sometimes arrive suddenly and without warning, raising telltale itchy wheals on the skin. At least a quarter of the population experiences at least one outbreak of urticaria (the medical name for hives) over the course of a lifetime. Common triggers include drugs, food, cold, heat or exercise. While thyroid or autoimmune problems can bring on hives, the cause is only rarely identified in patients with chronic or persistent eruptions.

Up to 40 percent experience angioedema, deep swelling of the skin that can present as a swollen tongue, lips, pharynx or extremities. Hives result from the overproduction of histamine in the upper layers of the skin, caused by hyper-reactive or "twitchy" mast cells in the body. Antihistamine medications like Zyrtec or Claritin are usually effective in relieving symptoms. Steroid medications should only be used as "rescue drugs" in severe allergic reactions.

"Hives come and go," says Jasmine Abbosh, M.D., an allergist with Connecticut Asthma & Allergy Center, "but 50 percent of patients with chronic hives will have a recurrence." Even without treatment, chronic hives eventually disappear. While hives spontaneously resolve in half of all patients within three months to a year, in others hives may take years to go away.

| in the DOCTOR'S OFFICE |

Reshaping the Contours of the Body

Beauty may be only skin deep, but new options exist for sculpting and recontouring the face and body.

In Newport Beach, California, hot trends in plastic surgery include calf, buttock and pectoral (chest muscle) implants.

In New England, cosmetic surgery consumers tend to be more conservative than their West Coast counterparts, though breast augmentation and reduction are increasingly popular.

"All over the country, breast enhancement is making a huge comeback," says Charles L. Castiglione, M.D., director of the Plastic Surgery Section at Hartford Hospital. "After the controversy in 1992 about silicone breast implants, we did fewer of them, but today's saline-filled implants at worst leak only salt water. We do procedures nearly every day for reconstructive surgery after breast cancer, as well as for cosmetic reasons."

Functional and reconstructive surgery is performed to repair function or improve the appearance of parts of the body misshapen by tumors, trauma, disease or congenital defects. Since cosmetic breast augmentation is elective, it is usually

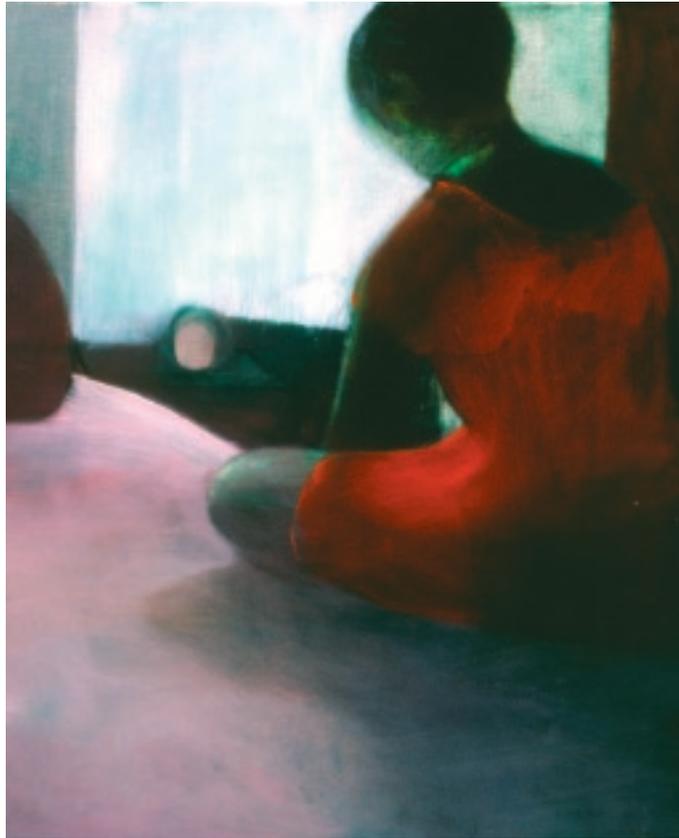
not covered by insurance. While reconstructive surgery is generally covered by most health insurance policies, coverage varies. Breast reduction is covered if afflicted women suffer breathing impairment or neck, shoulder or back pain.

With the boom in gastric bypass surgery (see Pioneering Procedures), plastic surgeons are called on to repair drooping skin left after rapid weight loss. "Skin becomes stretched and loses elasticity," says Dr. Castiglione. "After bariatric surgery, we often need to do a drastic tummy tuck and thigh or breast lift. Some patients have eight inches of skin hanging off their arms. If the patient develops a rash under overhanging flaps of stomach skin, for example, the procedure may be covered by insurance."

Even those ever-popular facelifts are changing as new minimally invasive techniques have become available to delay conventional open surgery. Last year, more than 3.6 million Americans fought aging, smoothing wrinkles with longer-lasting injectables for wrinkle filling and facial shaping.

Psychiatrists Defend Antidepressants For Kids

Depression is a common illness among children and adolescents in the United States, just as it is for adults. In 2002, nearly 11 million children and teenagers were prescribed antidepressants. Recently, though, the U.S. Food and Drug Administration (FDA) added a “black box warning” to antidepressant labels, similar to those carried on cigarette packages. The printed advisory highlights the need for close monitoring of patients because of increased risk of suicidal



thoughts and behavior in children and adolescents treated with antidepressants. It also states whether or not the drug has been approved specifically for use in children.

“The clinical concern that antidepressants may cause or worsen suicidal thinking is not new,” explains Lisa Namerow, M.D., a child and adolescent psychiatrist at The Institute of Living. “In research studies, it’s difficult to obtain enough positive data to show that antidepressants work for children and adolescents, and this lack of information probably led the FDA to react as strongly as it did.

“But practitioners who treat children,” she adds, “are convinced of the efficacy of these drugs for their patients.”

Last spring, Congress held emotional public hearings in which parents told of their children’s suicides, while lawmakers demanded that drug companies publicize the results of clinical trials. New York State attorney general Eliot Spitzer charged GlaxoSmithKline with fraud for promoting the antidepressant Paxil to physicians while suppressing the results of clinical trials that showed no benefit. The FDA at first found fault with its own drug-safety analyst,

Dr. Andrew Mosholder, whose research showed a link between antidepressants and suicide in children and teenagers.

“Patients who already are suicidal may become more restless and agitated when they begin taking an antidepressant—and that energy boost may lead them to kill themselves,” says Robert A. Sahl, M.D., division chief of child and adolescent psychiatry at The Institute of Living. “However, these medications have been used for a long time in children of all ages with minimal serious problems. Kids need to be monitored not just by a

psychiatrist, but also by a therapist. You can’t simply give kids medications.”

Antidepressants can be lifesaving for many patients, despite the fact that depression is a serious mental illness that already heightens suicide risk. Suicide is the third leading cause of death among teenagers, lagging behind only homicide and accidents. While acknowledging the need for careful monitoring, many psychiatrists credit the widespread use of antidepressants with the drop in teen suicides over the past decade.

“Psychiatrists in clinical practice are still going to prescribe antidepressants to children and adolescents,” says Dr. Namerow, “and we have to hope that pediatricians, who are not specifically trained in psychiatry but have learned so much about their patients’ mental health in the last decade, will continue to do so too.

“The FDA warning does give new meaning to the concept of informed consent,” Dr. Namerow adds, “as we discuss the need for parents to watch their children carefully for suicidal thinking or behavioral changes.”

Cranberry Sparkle Punch



Snowman, plates and napkins courtesy of the Hartford Hospital Auxiliary Gift Shop.

Hartford Hospital photographer Joy Miller's much-loved Auntie Ruth came up with the idea of garnishing the punch with sliced bananas. Ruth, who died a couple of years ago, retired to the Cape in the early 1960s after years as an underwriter at The Hartford. Her mother, Ana, worked as a nurse at Hartford Hospital after coming to America from Denmark. Ruth left a legacy of Cape Cod recipes, including this one for a sparkling holiday punch.

(Easy to make ahead of time)

Yield: 5 quarts

2 qts. cranberry juice cocktail
2 12-oz. cans pineapple-orange juice
1 qt. ginger ale
2 tsp. lime juice
½ c. confectioners' sugar
fruit

Chill and combine all ingredients but ginger ale.
Add ice; garnish with fruit (sliced banana or similar.)
Add chilled ginger ale just before serving.

Nutritional Information
(8-oz. serving)

Calories: 88
Carbohydrate: 22 mg
Vitamin C: 45 mg (not counting fruit, which varies)
Protein: 0.17 g
Total fat: 0.1 g
Cholesterol: 0

Recipe analyzed by Brunela Ibarrola, MS, RD, CD-N.