metabolism. At least 2 previous studies have found higher estrogen levels in women consuming grapefruit or grapefruit juice, the authors note, and grapefruit is known to elevate serum concentrations of many drugs, including hormone replacement therapies. The US Food and Drug Administration requires hormone replacement products to carry warning labels stating that grapefruit juice may increase plasma concentrations of estrogen.

Monroe stresses, however, that there’s not yet enough evidence to recommend women stop eating grapefruit as a means of lowering their breast cancer risk. And because premenopausal women and breast cancer survivors were not part of her cohort, it’s not possible to know whether grapefruit would have similar effects on them.

“This needs to be confirmed in other studies,” she says. “I would use caution until further studies are done and a scientific conclusion can be reached.”

Other experts agree.

“Results from a single epidemiological study are insufficient as a basis for recommendations,” says Michael Thun, MD, American Cancer Society (ACS) Vice President of Epidemiology and Surveillance Research. “In this case, however, other studies have established that even modest consumption of grapefruit affects the action of many drugs. Women who have had estrogen receptor-positive breast cancer or are concerned for other reasons could consider substituting other fruit until this issue is clarified.”

Additional research is needed to determine whether grapefruit has any effect on the risk of recurrence or progression in breast cancer survivors and how that association might be influenced by the tumor’s estrogen-receptor status, the patient’s menopausal status, and her current or past treatment.

Until more is known, women would be well-advised to follow ACS nutrition guidelines for cancer prevention, says Marji McCullough, ScD, RD, ACS Strategic Director of Nutritional Epidemiology. The guidelines emphasize eating at least 5 daily servings of a wide variety of fruits and vegetables of different colors. A varied diet not only maximizes intake of beneficial plant nutrients, but could also limit the amount of potentially harmful substances from any single food. Further, eating fruits and vegetables helps to prevent excess weight gain in adulthood, a factor known to increase the risk of breast cancer. The full nutrition guidelines are available free online at http://CAonline.AmCancerSoc.org/cgi/content/full/56/5/310.

Monroe says future studies of grapefruit should not only seek to confirm her team’s findings, but also to quantify grapefruit’s effects by measuring estrogen levels before the fruit is eaten and afterward. Studies should also explore how long grapefruit’s effect on estrogen lasts in the body, she says, as previous research has shown elevated levels of some drugs as many as 72 hours after drinking a single glass of grapefruit juice.

DOI: 10.3322/CA.57.6.321

BUILDING A BETTER YOUTH ANTISMOKING CAMPAIGN

Kids care about what their friends do and think—and communications experts say tapping into that concern may help public health officials design more effective antismoking campaigns targeting young people.

In a study published in the journal Communication Research (2007;34:407–432), researchers from the University of Georgia and the University of Wisconsin explore how peer relations influence adolescents’ perceptions of antismoking messages in print, online, radio, and television media. They surveyed 1,687 kids in sixth, seventh, and eighth grade at 4 Wisconsin middle schools about how many such messages they and their peers are exposed to and how those messages influence their feelings about smoking and intentions to smoke.

Surprisingly, they found that the more kids were exposed to antismoking messages, the more likely they were to form favorable attitudes about smoking and a higher intention to smoke. That’s exactly the opposite effect such campaigns are intended to have, of course, and a disappointing finding.
But lead study author Hye-Jin Paek, PhD, Assistant Professor at the University of Georgia’s Grady College of Journalism and Mass Communications, says the study results reveal much more about what types of campaigns are likely to succeed at getting kids to quit or never start smoking.

The study found that while kids don’t believe they themselves are influenced by antismoking messages, they do believe these messages influence their close friends (proximal peers)—and that presumption can influence them. This effect was seen both in kids classified as ever-smokers (current or former smokers and even those who had had only a single puff of a cigarette) and in never-smokers, but was stronger in the ever-smokers.

“For them [the ever-smokers], it’s very important that we provide perceptions of peer norms and smoking norms that say ‘Your close friends and peers are not really smoking,’” explains Paek.

Doing so would make it more likely that these kids would respond in a positive way to antismoking campaigns.

Paek’s study did not compare specific advertisements, but it cites Florida’s late-1990s “truth” campaign as an example of a successful antismoking effort. The creators of that campaign researched their target audience of 12- to 17-year-olds carefully, she says, and discovered that teens don’t want to hear preachy antismoking messages. So instead, the campaign tapped into youth rebellion and antiestablishment sentiment. They employed top-notch advertising professionals to help create edgy ads around a sustained theme—the “truth” as opposed to the deceptive practices of the tobacco industry that entice young people to smoke.

The campaign also used techniques other than advertising by getting teen activists involved in community efforts, enlisting the help of policy makers, and developing an in-school smoking prevention program.

“It wasn’t just a media campaign,” Paek says. “It was a collaborative, integrated marketing effort.”

Collaborative efforts are key, agrees Thomas J. Glynn, PhD; Director, Cancer Science and Trends; and Director, International Cancer Control at the ACS.

“Media alone doesn’t do the trick,” he says. “It needs to be combined with other tactics like increased taxes and promotion of smoke-free environments.”

One of the things that made such a massive effort possible was money: Florida had $200 million out of a $13 billion settlement with the tobacco industry at its disposal.

Adequate funding is one of the obstacles hampering the development of similarly successful campaigns, Paek says. Another is time; many antismoking campaigns simply are not sustained long enough to make an impact in today’s media-soaked culture.

Money and time are 2 advantages the tobacco companies have over public health initiatives when it comes to advertising, says Glynn. Philip Morris, for instance, launched its advertising campaign encouraging parents to talk to their kids about not smoking in 1999.

Although long-lived, the tobacco company ads are not likely to convince kids not to smoke, says Glynn. By aiming the ads at parents and emphasizing that smoking is a choice that should only be made by adults, the ads appeal to young people’s rebellious instincts, he explains.

“To many communications experts, the tobacco industry ads seem designed to encourage rather than discourage youth uptake of tobacco,” says Glynn.

Paek says those who develop antismoking campaigns should have realistic ideas about what these campaigns can accomplish and focus on long-term goals rather than on short-term effects, which are less likely.

“Media campaigns can be successful by changing those social norms slowly,” she says.

Public health officials must also do more to understand their target audience and strive to make better use of marketing concepts, she advises.

Glynn says to be effective, youth-directed ads should make it clear that smoking is not the norm among teenagers, use humor, and emphasize the immediate consequences of smoking—smelly clothes, yellow teeth, and bad breath—rather than the long-term consequences.

Public health officials can also tap into resources like parents and the medical community, Paek says.
“I’ve done a series of antismoking studies among adolescents, and I found that parental monitoring is indeed important,” says Paek. “And more important sometimes than media campaigns. It makes sense because parents are a more important socialization medium.”

Parents need to talk to their kids about not smoking, she says. Doctors also can talk to their young patients about not smoking, keeping in mind that peer influence is a strong motivator for teens who smoke.

DOI: 10.3322/CA.57.6.322

EXPERIENCE COUNTS FOR PROSTATECTOMY EFFICACY

Men who choose radical prostatectomy as treatment for prostate cancer should seek out a surgeon with many of these procedures under his or her belt, researchers from 3 major cancer centers say. Their recent study (JNCI 2007;99:1171–1177) finds that more surgeon experience translates into a lower probability of recurrence for the patient.

In fact, they calculated that a man operated on by a surgeon who has performed 250 or more prostatectomies has an absolute risk of recurrence 7.2% lower than one treated by a surgeon who has performed 10 or fewer prostatectomies. That difference is both statistically significant and clinically important, says lead study author Andrew Vickers, PhD, Associate Attending Research Methodologist at Memorial Sloan-Kettering.

“This is the sort of thing that if we saw it in a drug, we’d be totally blown away by,” says Vickers.

The findings are based on records of 7,765 men treated by one of 72 surgeons between 1987 and 2003. The surgeons were from 4 participating institutions: Memorial Sloan-Kettering Cancer Center in New York, Baylor College of Medicine in Houston, Wayne State University in Detroit, and the Cleveland Clinic in Cleveland, Ohio. Vickers and his colleagues wanted to know whether the number of radical prostatectomies the surgeons had performed over the course of their careers influenced the likelihood of prostate cancer recurrences in their patients.

Most of the surgeons (57%) had performed fewer than 50 prostatectomies, just 11% had done 250 to 999, and 3% had performed more than 1,000. There were 1,256 biochemical recurrences among the patients during a median 3.9 years of follow up.

Vickers and his colleagues calculated the 5-year probability of recurrence at 17.9% for men treated by a surgeon who had performed 10 or fewer prostatectomies and 10.7% for men treated by a surgeon with 250 prior operations ($P < 0.001$). This difference remained even after controlling for possible differences in case mix, the year the surgery was performed (to account for the impact of stage shift resulting from widespread implementation of prostate-specific antigen testing), and tumor pathology.

The likelihood of a patient remaining cancer-free increased steadily and sharply with the number of surgeries performed until leveling off at 250 procedures.

Although many studies have examined outcomes related to surgeon volume, this one stands out because it looked at surgery as a sole treatment and because its endpoint was biochemical recurrence, rather than death (which can be influenced by comorbidities, postoperative care, adjuvant therapies, and other factors unrelated to surgical technique), Vickers says. Rising levels of prostate-specific antigen after surgery are a good indicator of the surgery’s success, and because no adjuvant or neoadjuvant treatment was given, surgical technique is the primary factor likely to affect recurrence.

“We think we’re really able to identify an effect on patient outcome based on differing surgical techniques,” he adds.

Just what surgical techniques are most effective is a matter that requires further study. Vickers says clinical trials comparing different techniques should be organized in the same way studies explore the efficacy of different chemotherapy regimens.

The medical community should also reconsider how surgeons are trained, he says, perhaps by incorporating practical clinical training into