

Health & Headlines

A Top Woman Doctor Tells How to Get Past the Hype to the Truth

BY SUSAN J. BLUMENTHAL, M.D.

From the dangers of diet drugs to the "miracle" of melatonin, from breast cancer breakthroughs to holistic help for heart disease, from sound bites on vitamin supplements to advice about HIV protection, news reports on medical advances can bring you solid information, false hope or unwarranted anxiety.

READING BETWEEN THE HEADLINES

With the constant explosion of medical advances and research findings, not a week goes by without another confusing or conflicting health message in the media. A few months ago, for example, a newspaper headline declared, ENZYMES MAY PLAY KEY ROLE IN BREAST CANCER. A wire service spread the news, STUDY SUGGESTS "ON" SWITCH FOR BREAST CANCER. These stories, the results of a press conference held by scientists at the State University of New York at Stony Brook, were based on research showing that many breast tumors have an elevated amount of an enzyme called MAP (mitogen-activated protein) kinase.

But a week later, another headline appeared: FALSE HOPE ON BREAST CANCER? The story called the excitement over the discovery "premature." What happened? Several reporters had failed to note that the study was very small, measuring the enzyme levels of fewer than 30 women, and that elevated levels of MAP kinase are found in many types of cells, not just cancerous ones. So while the scientific community understood that this new study was only a small piece of a very complicated puzzle, the media put too much emphasis on it in early reports. The lesson? It's essential to be discerning when reading health information.

Some news reports are comprehensive, but most are sketchy and incomplete, often because the media are short on time or space. Others are designed just to grab the public's attention. To interpret medical news and put it in perspective, it helps to understand the selection



processes that take place long before a reporter types her first word. A 1991 report in the *Journal of the American Medical Association* suggested that the media are likelier to report on studies with alarming findings (for example, when an environmental factor is suspected of being linked to cancer) than comforting news (when no link is found). A study published last year in the *Annals of Internal Medicine* hints that medical journals themselves may have a bias against publishing studies that fail to find a connection between a substance and a disease. And the *American Journal of Public Health* reports that the media most often cover findings from one or two well-known journals and often overlook studies in lesser-known periodicals.

There are several questions you should ask when evaluating news of medical "breakthroughs":

- How powerful is the proof? There are two major types of studies: *observational*, where scientists look at which subjects were exposed to which risk factors and draw conclusions about how their health was affected, and *experimental*, in which people or animals are actively exposed to a particular substance or behavior so their reaction to it can be measured. Experimental studies are usually stronger than observational ones when it comes to proving whether something actually causes a disease, but they aren't always possible for ethical reasons. For example, scientists wouldn't explore alcohol's effects on fetal development by asking pregnant women to drink three glasses of wine a day.

- Was the research done on humans? Studies with animals can provide important information as to which theories hold promise for studies in humans. But they

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shouldn't be considered conclusive, because what works in animals might not work for us. For example, you may have read recently about artichoke nectar being rubbed on the skin after sun exposure to help prevent skin cancer. But before you start bathing in artichoke juice, pay attention to the subjects of the experiment: hairless mice.

- Was the study done on women? Not only are human studies generally stronger, but research done specifically on women is better when it comes to making decisions about our health. Take exercise: One widely publicized study from Harvard University suggested that exercisers live longer. Another study, from Lawrence Berkeley National Laboratory in Berkeley, CA,

people. A study that small on this topic can't provide enough information for us to make firm conclusions.

- How do findings compare to previous studies? Research that builds on a foundation of prior findings is usually more reliable than research that doesn't. Here too, study size is important. A new finding from a study of 1,000 people might be important and lead to further research. But if a study of 100,000 people has already led to a different conclusion, the 1,000-person study is less important.
- Was the research published? Scientists often first present their findings at medical conferences, where their results are picked up by media from all over the country. But this publicity is sometimes premature.

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came to a similar conclusion. Yet doctors can't make exercise recommendations for women solely on the basis of these findings, because both studies were done exclusively on men.

Fortunately, the National Institutes of Health in Bethesda, MD, now requires that women and minorities be included in publicly funded clinical research. But women are still excluded from some studies conducted in other countries or by private industry, so one of the most important questions to ask remains, "Were women studied?" (Until more is known about the exercise connection, it's probably wise to keep hitting the gym.)

- How large was the study? Last July a major wire service carried this headline: HIGH BLOOD PRESSURE MAY SHRINK BRAIN IN ELDERLY. While the study, from the National Institute on Aging in Bethesda, MD, may eventually lead to further research on the treatment of blood pressure and the prevention of memory loss, the wire story did not report that this initial investigation looked at fewer than 50

because the research may not be complete enough yet to be submitted to a medical journal, where its reliability would be reviewed by other scientists before publication. On the other hand, even if a study's results are unpublished, it doesn't mean they're insignificant. It just means it's too early to base decisions on the study.

- Who paid for the study? When drug companies develop products, they create publicity campaigns and sometimes pay scientists to speak out in support of their claims. A Washington radio station recently reported on a study suggesting that a compound found in wine might reduce the risk of breast cancer. The newscaster didn't mention that the news conference where the findings were announced was sponsored by a wine industry group, nor did he discuss the potential risks of alcohol consumption, including liver disease and alcoholism.

- How great an increase in risk are we talking about? The media often find it easiest to present research results in terms of percentages. For

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example, reports on a 1991 study published in the journal *Obstetrics and Gynecology* noted that women who take oral contraceptives are 40% likelier than women who don't to develop breast cancer before age 35. Those who saw the 40% figure in the press may not have realized, however, that the rate of breast cancer among women younger than age 35 is actually quite low to begin with. So in this case even a 40% increase amounts to a fairly small number: three additional cases of breast cancer per 100,000 women. Taking a closer look at numbers like this can put a whole different slant on what sounds at first like a very frightening report.

HOW TO DO YOUR OWN HEALTH RESEARCH

If you believe that a news report of a health finding might be relevant to you, get a copy of the study. It's remarkably easy: If you hear about a study on TV or the radio, check the newspaper for more information; there you'll often find a mention of

Getting the Facts

Even if you don't have access to a medical library, you can find the latest research reports by contacting one of the following sources:

- Medline, www.ncbi.nlm.nih.gov/ PubMed, contains brief summaries of findings from scientific journals. Journalists have long used this National Library of Medicine service, which was recently made available free to the public.
- The National Women's Health Information Center, 800-994-WOMAN, provides access to hundreds of health resources, including summaries of studies published in many current medical journals.
- Healthfinder, www.healthfinder.gov, a Website sponsored by the U.S. Department of Health and Human Services, leads you to other reliable online sources of health information.

the source of the study, usually a medical journal. Large libraries carry popular journals or can tell you where to find them. You can also search for a study online. (For my favorite sources, see "Getting the Facts," above.)

When you have a copy of the study, consult your doctor for help interpreting how the findings apply to you. Also consider your family and personal medical history before applying new research to your health. If a study finds that an aspirin a day might help prevent heart attacks, it may be fine for some people but dangerous to you if, for example, you have an ulcer. Similarly, if you read that wine helps prevent heart disease but you have a family history of alcoholism, you need to tread more carefully.

The media play a critical role in educating and raising awareness about important health issues, but before you take findings to heart (or any other body part), become an educated consumer: Do a little investigative reporting of your own. ♦

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