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The Top Ten Unfounded Health Scores of 2004

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Along with a lot of really important health news, like the shortage of flu vaccine, 2004 also provided a plethora of unfounded health scares—stories that warned us of exaggerated or mythical risks, often based on brief, hyperbolized or misinterpreted medical research. ACSH has rounded up and explained 10 of these scares, which have often received much more media attention than they're worth.



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Antibiotics Cause Breast Cancer
Teflon Causes Health Problems in Humans
Soda Causes Esophageal Cancer
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Deodorants, Antiperspirants Cause Breast Cancer
Plastics Cause Cancer

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Introduction

Since its founding in 1978, the American Council on Science and Health (ACSH) has been dedicated to providing scientifically sound health information to American consumers. As part of that mission, ACSH has frequently countered misleading and alarmist health news in print, broadcast, and online media. In a classic ACSH publication, [Facts Versus Fears: A Review of the Greatest Unfounded Health Scares of Recent Times](#),⁽¹⁾ ACSH evaluated 27 of the greatest health scares of modern times, reviewing the basis of each, describing their presentation in media, and presenting scientifically accurate information on each topic. The current publication, *The Top Ten Unfounded Health Scares of 2004*, is organized along similar lines.

Unfounded stories, or those based mainly on hyperbole, focus attention on hypothetical risks and divert attention from real problems. While we acknowledge that media coverage of health stories is, of necessity, brief and cannot take all nuances of scientific and medical research into account, there is considerable room for improvement in health reporting—particularly when it comes to sorting out health facts from health hype.

We are not alone in this position. A poll by the Canadian Medical Association in 1999 found that 66% of Canadian physicians believed that news media coverage of medical health information was inaccurate.⁽²⁾ Since that poll was taken, coverage has apparently not improved, according to a recent editorial in the *New England Journal of Medicine*.⁽³⁾ Specifically, Dr. Edward Campion, author of the editorial, noted that because most health reports are based on research findings from expert scientists, the public tends to place a lot of trust in what they read in health stories in the press and other media. He cautions, however, “There is a tendency for health reports to describe events as exciting, major advances or as immediate, threatening dangers.” This characteristic, especially combined with anecdotal reports of amazing cures or newly discovered “risks,” can mislead consumers about the relevance of a particular story to their lives or health. And the reach of the stories can be vast. For example, Campion notes that one research report led to over 340 news stories.⁽⁴⁾

In reviewing 2004 health stories for this report, we found several characteristics that made many much less than reliable:

- *Ignoring the basic toxicological principle that "the dose makes the poison."* Some stories suggest that the tiniest dose of a chemical or toxin is a significant threat to human health. The incorrect implication is that the only way to deal with the supposed risk is to completely eliminate the targeted substance from food, air, water, and toys or other consumer products.
- *Misunderstanding or misinterpreting a statistical correlation to mean that a causal connection is present between an observed condition and a risk to health.* A good example is the flurry of concern about the possibility that the apparent increased incidence of autism in children was linked to childhood vaccinations. As we explain in this document, the fact that autism tends to emerge at about the same age that children are given various vaccines does not mean that the vaccines caused the disease.
- *Assuming that if large doses of a substance given to animals cause cancer or reproductive harm, then even trace amounts of that substance will cause the same result in humans.* ACSH has repeatedly pointed out the fallacy of predicting human cancer risk based on animal studies. For example, our classic [Holiday Dinner Menu](#) details the many animal carcinogens that are naturally present in our foods but are present in such tiny amounts that they do us no harm. Further, a substance that is carcinogenic in one species is not necessarily carcinogenic in another. Even relatively closely related rodent species like rats and mice can differ in their reactions to a particular chemical. A more extensive examination of this issue will soon be available in the ACSH book *America's War on "Carcinogens": Reassessing The Use of Animal Tests to Predict Human Cancer Risk*.
- *Presenting only one side of a health-related issue.* Reiterations of incorrect information in the popular press can lead consumers to assume that some health advice is accepted by mainstream scientists when it is not. Thus, information should be presented in context, and if contentious, both sides of the argument should be given. An example of this type of imbalanced reporting is presented in our section dealing with chemicals in cosmetics. A number of websites discuss the ingredients in cosmetics as though everyone agrees that they are human carcinogens, when in fact this is not the case.
- *Failing to acknowledge that there can be risks associated with not using a product because of exaggerated fears.* For example, neglecting to have children immunized against various diseases because of unsubstantiated fears of vaccines carries a real risk of increasing the occurrence of those diseases.

Having noted these shortcomings in many health reports, ACSH must also emphasize that at least some of the time, the media do make an effort to be balanced and to advise readers when information is preliminary. We applaud these efforts and would like to see them applied more widely.

It is our hope that this 2004 roundup of unfounded health scares will encourage consumers to be skeptical the next time a report trumpets the discovery of either a new chemical threat or miracle cure, and we hope, so will journalists and their editors.

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