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## Retinoids versus chemical carcinogens

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During the past decade, retinoids (non-toxic cousins of vitamin A) have emerged as promising cancer preventives. They have been found, in animals, to prevent various types of cancers caused by chemicals, viruses or radiation, and a trial is now underway to see whether retinoids can prevent cervical cancer in women. Yet at an American Cancer Society cancer prevention meeting this spring, Michael B. Sporn, a retinoid-cancer researcher at the National Cancer Institute, warned scientists and the public against expecting too much from the retinoids as cancer preventives. And now, in the June 19 *NATURE*, Michael S. Dickens and Sam Sorof of the Institute for Cancer Research, Fox Chase Cancer Center in Philadelphia report that retinoids' ability to prevent chemically induced cancer appears to have certain limitations.

Chemical carcinogens cause cancer by a multi-stepped process: First a chemical has to enter a victim's body and become altered so that it can bind to electron-rich molecules in cells. Then, with the help of a promoter chemical, it turns cells into cancer cells (*SN*: 6/23/79, p. 41). Now Dickens and Sorof have found that retinoids' ability to prevent chemically induced cancer seems to be very much caught up

in this multi-stepped process and also limited by it.

The researchers tested the ability of one retinoid, retinylidene dimedone, to prevent cancer in mouse mammary glands in tissue culture that was triggered by low or high concentrations of procarcinogens (chemical carcinogens not yet altered so they can bind to electron-rich molecules in cells) or that was triggered by low concentrations of carcinogens (chemical carcinogens already so activated). They found that whereas the retinoid could prevent cancer caused by low amounts of the procarcinogens, it could not prevent cancer caused by large amounts of them, and that the retinoid could not prevent cancer caused by low amounts of the carcinogens, with the exception of one, a nitrosamide. □

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## Laetrile clinical trial?

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Although the National Cancer Institute announced in 1978 that it would be conducting a clinical trial to determine whether the controversial drug Laetrile is effective, such a trial has still not gotten underway. However, six cancer patients at the Mayo Clinic did receive Laetrile during April and May to see whether Laetrile is safe when taken along with a special diet that is to be used in the NCI Laetrile trial. No adverse effects were found, a Mayo spokesman announced last week. □

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## The joy of running in regular cycles

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People dream up plenty of reasons for not exercising. But recent findings by a New York City fertility specialist indicate that women who rationalize that exercise will stop their menstrual cycle or increase male hormone production to masculinizing levels will have to find a new excuse. In fact, the study shows that exercise may help women regain their regular cycles.

At the International Congress on Women and Sport held in Rome this week, obstetrician/gynecologist Mona Shangold presented results from her study of the menstrual cycles of women marathon runners. She reports that more women went from being irregular to regular than from being regular to irregular when they began training.

Too often a woman who exercises will visit a gynecologist to complain of irregular menses and be told to stop exercising, says Shangold. But irregularities, she maintains, should not be presumed to be exercise-related until all other factors, including stress, are ruled out: "Women athletes deserve the same full medical evaluations as non-athletes."

In her study of 394 women who ran the 1979 New York marathon, 93 percent of the women with regular cycles maintained their regular cycles after they took up running. Of the women whose menses were

irregular before they began running, 26 percent regained their normal cycles. Seventeen percent of the amenorrheic women reported that they had begun menstruating when they started exercising.

Looking at the women's histories prior to running, Shangold found that more of them had menstrual irregularities than did women in the general population. "It's interesting that the incidence of irregularity in these women both before and during training is higher than in a random study," says Shangold. "It may be the type of person attracted to running has a certain amount of drive or other stress-related factors which may be leading to irregularity," she suggests.

Shangold has also looked at the presence of the male hormone testosterone in female athletes, since excess testosterone can cause menstrual irregularity. In a study presented at the Endocrine Society meeting last month, Shangold reported on testosterone changes in 30 female non-professional athletes before and after a half-hour of exercise. While testosterone levels did rise, they remained well within normal levels for women. Studies that have shown a significant rise have failed to consider stress-related factors or the normal daily variations of testosterone levels, says Shangold. □

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## Psychiatrists to ERA: Never mind

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It may not have been unusual to San Franciscans, but the sight—and sound—of the rather odd alliance of equal rights amendment supporters teamed with former mental patients seemed to throw 11,000 visiting psychiatrists somewhat off balance. That was early in May, when the vocal demonstration apparently influenced those attending the American Psychiatric Association's annual meeting sufficiently for them to move its 1981 meeting from originally scheduled New Orleans to an ERA-ratifying state. At least that's what the APA board of trustees voted as ERA supporters marched outside the convention center.

But then came June, and a change of mind: The trustees, meeting in Washington, decided to rescind the May vote and hold the 1981 meeting in New Orleans. An APA news release cited "legal opinion presented by counsel" as a major reason for reversing the board's decision. In two previous referenda (prior to the San Francisco meeting), members had voted to go to New Orleans. Stating that the association is "extremely sympathetic" to ERA supporters, APA president Donald Langsley added in a prepared statement that "we are also mindful... [of] adhering to the democratic vote of our members. Neither the actions by the board nor the referendum vote of the membership should be interpreted as a reversal of American psychiatry's long-standing and ardent support of the equal rights amendment."

Not all psychiatrists appeared to agree with Langsley, however. A group of "psychiatrists for ERA," along with feminist Gloria Steinem, scheduled a news conference to protest the latest trustee vote. Langsley said in an interview that he did not expect the reversal to trigger a significant drop from expected attendance at the 1981 meeting. However, he revealed that in an effort to accommodate dissenting members, APA is considering adding "additional meetings" in ERA-ratified states for those psychiatrists who refuse to attend the New Orleans meeting. □

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## Toxic shock linked to use of tampons

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The possibility of a tampon connection in the mysterious toxic-shock syndrome recently was reported by investigators for the Center for Disease Control in Atlanta, Ga.

Toxic-shock syndrome—which most often strikes women under 30—is a sometimes fatal disease characterized by high fever, vomiting and diarrhea and, ultimately, severe prolonged shock and