

hypotension (low blood pressure). First described in 1978, the disease received national attention in May when CDC officials suspected an increased incidence of the syndrome (SN: 5/31/80 p. 343). At that time, epidemiologists theorized that toxin produced by the bacteria *Staphylococcus aureus* causes the disease.

While evidence continued to mount in support of that theory, investigators uncovered an association between the syndrome and tampon use. Results of one study comparing toxic-shock patients with healthy women of similar age indicated nearly 100 percent of the syndrome victims and only 86 percent of the healthy women had used tampons, a statistically significant difference.

While the precise reason for the tampon connection is unknown, various explanations have been proposed. "The most likely [explanation]," says CDC epidemiologist Kathryn Shands, "is the tampon somehow acts as a culture medium to promote growth of the bacteria or to promote release of the toxin or to promote absorption of the toxin from the vagina into the bloodstream." □

## THC-cancer update

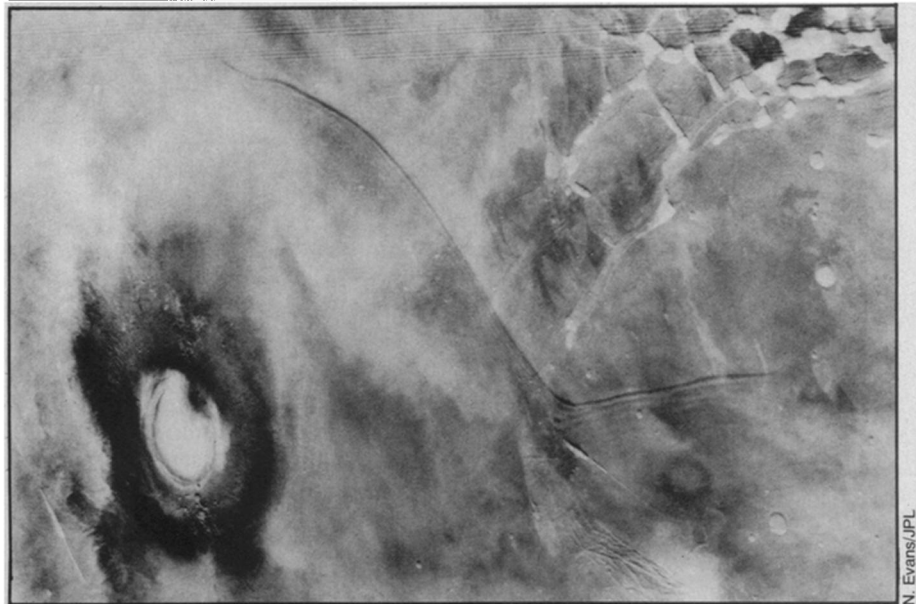
Although a Food and Drug Administration advisory panel recently voted to recommend wider use of the marijuana derivative THC to treat nausea and vomiting in cancer chemotherapy patients, the THC issue is far from resolved. In fact, the advisory panel chairman was forced to cast a tie-breaking vote in the decision.

Moreover, an absent — and, therefore, non-voting — member of the panel, Charles G. Moertel, wrote a letter expressing concern that "weight of the current political hysteria for general release of THC" may "exceed the scientific evidence justifying release." Moertel, director of clinical cancer research at the Mayo Clinic in Rochester, Minn., says release of THC for wider use among cancer patients is premature, partially because favorable THC studies have involved only young patients. "The guidelines simply warn against treating the elderly patient. How old does a patient have to be to be considered 'elderly' and what data do we have to support any specific age limit we might choose," Moertel wrote.

Alice O'Leary of the National Organization for the Reform of Marijuana Laws also is concerned that only a small portion of the cancer patient population will benefit from wider use of THC: Some cancer patients will have trouble retaining the pill; others will suffer "serious psychic anxiety." O'Leary says that even though natural marijuana is as effective an antiemetic as THC, use of it results in less psychic anxiety. "There are a number of cannabinoids in marijuana interacting to give the best therapeutic action," she explains. □

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## Rare Martian weather wave — with a kink



*It was spring in the northern hemisphere of Mars when the Viking 1 orbiter recently photographed the unusual weather feature shown above, curving around to the north of the great volcano Arsia Mons atop the Tharsis bulge. The oddly sharp, dark line has been seen only over this part of Mars, and only in spring—and never before with the sharp kink leading to the straight portion at right. According to Philip James of the University of Missouri, the feature could be a wave propagating along a sensity stratification in the atmosphere (such as might form in the early morning above the cold, near-surface "air"), possibly driven by atmospheric thermal tides or by movement down the volcano's slopes. As for the straight portion, says James, "it's a mystery," perhaps related to the influence of some topographic feature located at the kink.*

## Iodide: Yes or no after nuclear accident?

Participants in a recent debate on the use of potassium iodide pills as protection from radioactive iodine gas, a fission by-product that can be released in a nuclear plant mishap, agreed on certain things: Radioactive iodine can cause thyroid cancer, potassium iodide (KI) is an effective prophylactic and radioactive iodine's eight day half-life dictates that any preventive measures must be initiated immediately. They disagreed on just about everything else.

Humans can incorporate inhaled or ingested radioactive iodine into their metabolism-controlling thyroid glands, but it will be excreted if the thyroid is in no need of iodine. Potassium iodide, therefore, can be used as a sort of ingestible bomb shelter to prevent the absorption of radioactive iodine. But therein lies the catch — who needs KI, and how and when should they get it?

At the debate at the annual Endocrine Society meeting in Washington Nobelist Rosalyn Yalow spoke against the idea of distributing KI. Her chief concerns were the problems of side effects and distribution.

Yalow cited studies noting severe reactions to KI in people with systemic diseases, the development of potentially dangerous hyperthyroidism in older pa-

tients with heart conditions and frequent skin eruptions.

As for the potential danger of radioactive iodine in the event of a meltdown, she said, "The short and long term consequences are far less than the possible injury from the mass panic arising from the effort to get the blocking agent."

Jan Wolff, an endocrinologist at the National Institutes of Health, favors having KI on hand. "What will hurt gets in immediately," he said. "We must be prepared to act if we want to act."

Wolff cited government studies on nuclear energy that, he said, "concluded that barring the need for evacuation, the best available method for blocking the thyroid gland is KI." Invoking some of the same studies as Yalow, Wolff said many of the reports neglected to mention the dosage of KI, and noted that reactions were for the most part quite mild. "For the one million people who take KI," he said, "there has been extensive exposure and rather few reactions."

Rather than distributing KI, Yalow suggested investigating alternate methods to prevent iodine uptake. She suggests, for instance, that people could remain indoors and breathe through handkerchiefs soaked in baking soda. Wolff maintains that this technique will not work. □

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