

ozone. . . . After 1991 when the solar ultraviolet input declines, the total ozone column is again expected to decrease markedly as both effects combine to reduce ozone (p. 72).

The models used in these . . . studies do NOT include the chemistry associated with polar stratospheric clouds that is now believed to be part of the Antarctic ozone "hole". . . . Therefore, neither predictions of the hole, past and future, nor the global or hemispheric significance of Antarctic chemistry, are included in this assessment (p. 103).

The effects of polar stratospheric clouds and heterogeneous chemistry in the Arctic winter [represent major uncertainties] (p. 126).

The measured ozone decreases for these months are not adequately described by an assumed linear variation with time since 1969, but have instead primarily occurred recently rather than gradually over the 17-year period, 1969–1986. An alternate statistical treatment with a non-linear function whose slope is approximately twice as large in 1986 as in 1965 [that is, proportional to atmospheric chlorine content] provides a set of trend coefficients which is marginally superior to the standard simple assumption of linearity in such trend estimates (p. 37).

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“Critical Fat”

Mike May, in his report in Meeting Briefs (11 June, p. 1592) of a conference I did not attend (I was not invited), made incorrect statements about my research on the relation of menarche and fertility to body fat. The data in my 1974 *Science* paper (1) are not on runners and swimmers, but on girls and women with weight loss due to excessive dieting. May's statement that normal menstrual cycles “require at least 30% fat by weight (*italics mine*)” is incorrect. The *average* for U.S. normal women at completion of growth is about 26% to 28% fat as a percentage of body weight. The minimum or threshold weight for height for menarche represents about 17% fat as a percentage of body

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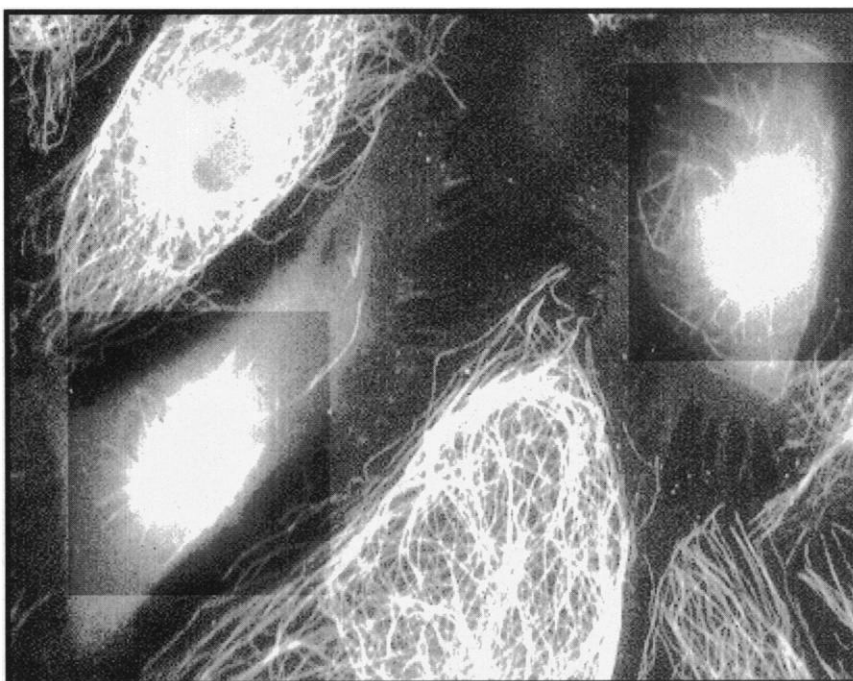
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weight; for maintenance or resumption of cycles in older women, the minimum weight represents 22% fat as a percentage of body weight. The weights are indicated by a body composition fatness indicator, total body water as a percentage of body weight (1). A ratio of lean to fat is involved; no prediction can be made from fat as a percentage of body weight.

The nomograms on which these weights are indicated are used clinically for the evaluation of hypothalamic amenorrhea due to dieting or exercise, or both (1, 2). We have also studied ballet dancers (3), college runners and swimmers (4), and rowers (5, 6). The observations of others on amenorrhea in dieting and athletic women (2, 7, 8) are in accord with our experimental data (9) and other aspects of the "critical fat" hypothesis presented in review papers (10) and my book (11). I have also related food intake and physical activity to the level of fertility of populations (12).

I did not say the statement attributed to me in direct quotes. What I did say was that the most important supporting evidence for the critical fatness hypothesis is the data of Vigersky *et al.* (8). These data show that simple, moderate weight loss results in abnormal function of the hypothalamus, the part of the brain which controls the pituitary-ovary axis and hence reproductive ability (8).

ity-ovary axis and hence reproductive ability (8).

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Response: Reporter Mike May interviewed Frisch twice. Her disputed statement, "I feel that we have very good, documented evidence for what we've published," appears in his notes as it was printed in *Science*.—Eds.

Corrections and Clarifications

In the last paragraph (p. 1909) of the article "Tropical deforestation and habitat fragmentation in the Amazon: Satellite data from 1978 to 1988" by D. Skole and C. Tucker (25 June, p. 1905), "(~15,000 km²)" should have been "(~16,000 km²). The last sentence of note 24 of the same article should have read, "Additional ground checking and verification were done in eastern Para state, north of Manaus and along the Rio Negro, both in Amazonas."

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