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Letters

Long and lean

Should we undernourish ourselves to live longer ("Lean Living," SN: 8/27/88, p. 142)? As animals do not do it voluntarily, undernourishment probably carries a penalty in real life. Perhaps the undernourished are weaker, less able to escape danger or capture food, or less likely to survive famines than the normally nourished. Is the lengthening of life seen in laboratories largely an artifact of the relatively unstressful captive environment?

As for humans, not only might most opt to enjoy eating, as your article suggests, but the stress of constant self-denial might have life-shortening consequences. Would the underfed laugh as much?

Julius Jortner
Costa Mesa, Calif.

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266 Saving Fuel in Flight

Cover: The propeller comes to the Jet Age. The propfan engine shown here, placed on a McDonnell Douglas aircraft opposite a normal jet engine, is one of many fuel-saving designs now coming of age. Researchers are also drilling holes in wings, shaving rivets one-thousandth of an inch and redesigning systems that have been used since the Wright brothers flew. These fuel-saving inventions could be coming soon to an airport near you — unless the low price of fuel keeps them grounded. (Photo courtesy McDonnell Douglas)



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The theories described in "Lean Living" seemed to hint at, yet never state, an apparently simple yet plausible explanation. A cell will divide 50 times. No matter what manipulations are done, 50 is the maximum (if frozen at division 30 and then thawed, they continue to 50 and stop). Might it be that with less food, a cell's rate of division — and therefore the entire aging process — is slowed?

Michael Clark
Seattle, Wash.

Consider that natural food contains small amounts of toxins: heavy metals, radioactive isotopes, insecticides, pollution. Some of these toxins can contribute to cell breakdown and tissue damage.

With reduced food intake, there would be reduced toxin intake. The mice fed vitamins

and minerals with reduced food intake had to deal with less chemical and radioactive toxins per week. If they get half the food, then they take in half the toxins.

Perhaps this is why they live longer. Perhaps someone should conduct an experiment to compare processed, toxin-free food with natural food, or do biopsies to determine the amount of toxins absorbed in the two mouse groups at the same age.

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