

Reply to letter by Burstyn

Dear Sir:

In our studies on diet and blood pressure in normotensive volunteers (1) there was a slight decrease in blood pressure over time on almost all diets. Burstyn (2) suggests that this trend was due simply to the effect of repeated measurements and not to the diets themselves. We completely agree with this suggestion and perhaps we should have mentioned this possibility in our paper. However, in evaluating the effect of a specific diet we could eliminate the effect of time trends, whatever their origin, because in each experiment some of the subjects were randomized into a control group that received a constant diet throughout the trial. In such a design, specific dietary effects are measured as the difference between the change in the diet group and the change in the control group over the same period. These differences were slight and insignificant on all the diets tested.

In most of our experiments, blood pressure was measured once before the start of the diets and twice during each dietary period, each measurement being the mean of two cuff inflations. We agree with Burstyn that more frequent measurements might have improved the sensitivity of our study. However, the SD for the change in blood pressure over time obtained by us was similar to that in other studies (3-5). We have previously stated (1) that our design was not sensitive enough to pick up very small changes in blood pressure. However, in some of the studies where a significant blood-pressure lowering effect

of fiber for example, was reported (6), subjects had not been randomized into experimental and control groups. In such a design, despite frequent and careful measurements, the possibility cannot be excluded that one is actually measuring some time trend induced by the experiment.

Martijn B. Katan

Jantine H. Brussaard

Department of Human Nutrition
De Dreijen 12
6703 BC Wageningen
The Netherlands

References

1. Brussaard JH, van Raaij JMA, Stasse-Wolthuis M, Katan MB, Hautvast JGAJ. Blood pressure and diet in normotensive volunteers: absence of an effect of dietary fiber, protein, or fat. *Am J Clin Nutr* 1981;34:2023-9.
2. Burstyn P. Variability in blood pressure measurements. *Am J Clin Nutr* 1982;36:379.
3. Oster P, Arab L, Schellenberg B, Heuck CC, Mordasini R, Schlierf G. Linolsäure in der Diätbehandlung der Hypertonie. *Ernährungsumschau* 1980;27:143-4.
4. Stern B, Heijden S, Miller D, Latham G, Klimas A, Pilkington K. Intervention study in high school students with elevated blood pressures. Dietary experiment with polyunsaturated fatty acids. *Nutr Metab* 1980;24:137-47.
5. Parijs J, Joossens JV, Van der Linden L, Verstreken G, Amery AKPC. Moderate sodium restriction and diuretics in the treatment of hypertension. *Am Heart J* 1973;85:22-34.
6. Wright A, Burstyn PG, Gibney MJ. Dietary fibre and blood pressure. *Br Med J* 1979;2:1541-3.

Poor design invalidates meat study

Dear Sir:

The study on serum lipids by Flynn et al. (1) is flawed and the authors' conclusions are unjustified. The researchers instructed subjects on *uncontrolled* diets to consume at least 5 oz of chicken or fish daily for 3 months after (or before) consuming at least 5 oz of beef daily for 3 months. Seeing no change in lipid levels, the authors concluded that their "study supports the opinion that a change in

the diet of a population which is healthy from one which includes beef to one which includes poultry or fish in a mixed diet for purposes of lowering serum lipid levels may be premature for persons who have normal range serum lipids."

The conclusion implies that avoiding foods high in saturated fat, such as beef, will not lower blood lipid levels. Yet the design of the study precludes any such conclusion. First, the subjects were required only to substitute