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## Counselling reduces high blood pressure

Intensive counselling can get people to make a wide array of lifestyle and dietary changes that will reduce their risk of developing high blood pressure, according to a major US clinical trial. But duplicating the trial's methods in the context of everyday patient care would be difficult.

High blood pressure is one of the 10 leading health risks worldwide and causes 7 million deaths a year, according to WHO's *World health report 2002*. More than three-quarters of cardiovascular disease can be traced to high blood pressure, high cholesterol, tobacco use, or a combination of those factors, the WHO report said.

Previous clinical trials of lifestyle modification and hypertension have focused on one intervention at a time. The new study, conducted at four clinical centres and published in the 23/30 April issue of *JAMA*, demonstrated that patients can cope with a large number of lifestyle changes all at once.

"What made this [study] different was that we counselled them on so many fronts," says Eva Obarzanek of the US National Heart, Lung and Blood Institute in Bethesda (MD). "They had a lot of things to change."

In the study, 810 generally overweight adults with blood pressure in the above-optimal or stage one hypertensive range — that is, with systolic blood pressure (BP) ranging from 120–159 mm of mercury and diastolic BP of 80–95 mm — were divided into three groups for different regimens.

One group merely got advice — a 20–30-minute session with professional counsellors who handed out literature and discussed behavioural changes. Six months later, this group's mean

systolic BP had declined by 6.6 mm and its mean diastolic BP by 3.8 mm.

A second group was treated to four individual counselling sessions and 14 group meetings with counsellors over six months on such lifestyle modifications as exercise, weight loss, and reduced salt and alcohol intake. They decreased their mean systolic BP by 10.5 mm and their mean diastolic BP by 5.5 mm. Forty per cent knocked their blood pressure down to less than 120/80.

The third group got the same behavioural counselling plus a tough diet modelled on the DASH (“Dietary Approaches to Stop Hypertension”) diet, which calls for nine or more servings of fruits and vegetables daily, two or more servings of dairy products and lower fat consumption. Their mean systolic BP dropped 11.1 mm and their mean diastolic BP 6.4 mm. Forty-eight percent reduced their BP to less than 120/80.

Only 39 of the 810 patients in the trial were smokers — too few to allow researchers to tease out any differences between smokers and non-smokers.

The study produced two surprises: the advice-only group did better than researchers expected, probably because of the counselling. But the combination of the behavioural and dietary modifications did not add up to as much improvement as the researchers had hoped.

Nevertheless, “I would still recommend a combination of these things,” says Victor Stevens of the Kaiser Permanente Center for Health Research in Portland (OR), principal investigator at the study’s coordinating centre. “I think the combination is more effective than each of these things individually.”

Stevens also says adapting the trial’s approach to real-world patient treatment is feasible. “Yes, there is a cost, and it’s not trivial,” he says, but points out that dealing with hypertension and the other ills that often accompany it is costly, too: “How many heart attacks would you have to prevent to make a major saving?” ■

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