References


Reply
Dr Mark Messina proposes that soy bean protein lowers cholesterol levels in hypercholesterolemic patients but not in subjects with normal cholesterol levels. If this is true, this protein would be unique among all other cholesterol-lowering nutrients or drugs. Other agents (dietary or pharmaceutical) that lower cholesterol levels produce approximately the same percentage reduction in individuals regardless of baseline cholesterol levels. When it appears that an agent lowers cholesterol levels only in hypercholesterolemic patients, the most likely explanation is that the study design has failed to correct for the phenomenon of "regression-to-the-mean."

In my opinion, it is still an open question whether soy bean protein has a mild cholesterol-lowering action compared with animal protein. Further rigorously controlled studies are needed to answer this question. However, the more recent studies suggest that if soy bean protein does in fact lower cholesterol levels, the reduction is relatively small.

Scott M. Grundy, MD, PhD
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Reference

Quis Custodiet Custodes Ipos?
To the Editor:

Kupari and colleagues always contribute so much of value that it is difficult to criticize their presentation on the physiological third heart sound; indeed, any criticism is for the peer review that, in this case, permitted methodological flaws that the authors could have corrected. First, highly subjective phenomena—particularly cardiac auscultation, on which this work depends—require results from more than one observer. Using mutually blinded auscultators, we studied the fourth heart sound, permitting "definite," "probable," and "possible" categories depending on degree of agreement. To use a single observer is to stand a study on the point of an inverted pyramid, irrespective of any convincing post hoc correlates (in this case, body mass index and peak early diastolic filling velocity among a large number that failed). Second, one must take exception to the comment "confirmed by phonocardiography in all." Phonocardiography can help check but not necessarily confirm auscultatory events. Indeed, in this work the perfect correlation of auscultation, especially by a single observer, and phonocardiography is remarkable, particularly for sounds in the low-frequency range.3,5,6 Third, because almost every heart has the hemodynamic fundamentals for filling sounds, ie, rapid early and late filling velocities, at some level of phonocardiographic filtration, S3 and S4 vibrations can be demonstrated in virtually every subject. Fourth, phonocardiographic data including filter and microphone characteristics should be reported, and appropri-
ate filter ranges should be available and described. We have worked with Hewlett Packard, Siemens, and Schwartzter phonocardiographs, and the filters' characteristics are critical, particularly in passing low-frequency S3 and S4 vibrations. The more gradual rolloff of the latter two types makes them more sensitive in the appropriate ranges. Finally, those familiar with phonocardiography have been disappointed by the equipment provided with echocardiographs because of limited range. They are useful mainly for timing various phenomena, eg, items like onset of isovolumic relaxation.

As a frequent correspondent, I have tried to be constructive. As an investigator of "Correspondence," I consider letters to be the principal check and balance on the peer-review system (supply side, of course). When a correspondent offers valid criticism, he or she is often questioning the peer reviewers, and in this case, Circulation's eagle-eyed custodians appear to have blinked.

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References


Reply
We appreciate Dr Spodick's interest in our work and the opportunity to respond to his critique. All data collected by clinical examination certainly include a subjective element, but we doubt whether there are valid comparative data to show that auscultation is less objective than any other clinical technique. Even data obtained by methods like cardiac ultrasound are examiner dependent because the echocardiographers' skills, experience, and way of interpreting what is seen may differ. The requirement of two blinded observers is theoretically sound but may be difficult to implement. We underscore that our work was neither made nor reported as a phonocardiography study. Throughout the article, from title to discussion, we emphasized that the classification of the subjects was based on audibility of S3. The heart sound display on the screen of the echocardiograph was used only as a subsidiary means, like another stethoscope for the cardiologist, to confirm (as clearly stated in "Methods") the presence of S3 heard at auscultation. In the absence of an audible S3, we were not interested in phonocardiography because audibility was the specified crite-

Thus, we neither studied the agreement between auscultation and phonocardiography nor reported "perfect correlation" even though S3 strong enough to be heard was regularly associated with S3 on the heart sound display. Of note, Van der Weer et al found a phonocardiographic S3 in almost all healthy persons (20 of 22 in their study; average age, 36 years). We agree with Dr Spodick on the limitations of the phonocardiographic equipment provided.
Quis custodeit custodes ipsos?

D H Spodick

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