

Blood donors live longer



One of the pieces of evidence used in our discussions of [the health effects of iron](#) has been the better health of blood donors. For example, blood donors have better insulin sensitivity and a greatly reduced risk of heart attack. But why do blood donors live longer?

The question always arises, however, to what extent these effects aren't confounded by the fact that blood donors are healthier than non-donors even before they donate a drop of blood. People are prevented from donating blood due to high blood pressure, heart disease, cancer, and so on.

A recent study tried to get around that problem: "Blood donation and blood donor mortality after adjustment for a healthy donor effect".(1)

The way the researchers did this was by comparing current donors to people who had stopped donating blood due to advanced age. (See [here](#).)

Here's what they found:

Analyses adjusted only for demographic characteristics showed a 18.6% reduction in mortality per additional annual donation (95% confidence interval [CI], 16.8%-20.4%). After additional adjustment for the internal healthy donor effect, **each additional annual donation was associated with a 7.5% decreased mortality risk** (95% CI, 5.7%-9.4%).

So presumably someone who donated 6 times a year, the maximum allowable, would have a 45% decreased risk of dying in a given year. That's a lot.

Unadjusted except for demographics (presumably age and sex), mortality risk went down 18% for each additional annual donation.

The correlation is very likely closer to serum ferritin level, a measure of iron status. Blood donors start and end up with varying ferritin levels. But they didn't have that data. Probably they would find that a donor who consistently had a 50 ng/ml ferritin would be less likely to die than one who only dropped to 80.

A previous study, unadjusted for the healthy donor effect, found that donors had an 88% lower risk of heart attack.

In another study, patients randomized to phlebotomy had 40% lower risk of cancer – and that can't be attributed to being a healthy donor. (See [here](#) for both.)

There's a wealth of evidence that accumulation of iron is toxic and accelerates aging, and [blood donation is the most effective way to lower iron levels.](#)