

# Does Soy Decrease Telomerase Activity?

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After viewing the University of Alabama, report on Soy, I would hate to be a company selling weight loss meal replacement based on Soy as a protein or its Isoflavones.

Now I think of it in another new and very scary way: Is it truly possible, could a Soy Based Meal Replacement, you use to try to thin your waist line, be decreasing your health and shortening your lifespan!! Scary stuff but what can you say when a report from a major university reveals this possibility.

Can Soy, and its components, make you age much faster, accelerating a decline in health and increasing an early onset of disease..? (A personal perspective to review and consider before using Soy)

Genistein an Isoflavone found in Soy once thought attractive has an ugly side to show!

“Genistein depletes telomerase activity” through cross-talk between genetic and epigenetic mechanisms (a condensed paraphrasing of this significant health risk)  
Excerpts from a study at: Department of Biology, University of Alabama at Birmingham, Birmingham, AL, USA. 2009 Jul 15

Abstract recap:

Genistein, a natural isoflavone found in soybean products, has been reported to down-regulate telomerase activity. However, the precise molecular mechanism by which genistein represses telomerase is not clear. Here, we show that genistein inhibits the transcription of hTERT (human telomerase reverse transcriptase), the catalytic subunit of the human telomerase enzyme, in a time- and dose-dependent manner.

These findings collectively show that genistein is working, at least in part, through epigenetic mechanisms of telomerase inhibition using an epigenetic modulator combined with genistein.

Personal Opinion Summarization:

Genistein, an isoflavone from Soy, will decrease telomerase activity. Telomerase activity is the mechanism that rebuilds telomeres and extends lifespan in mammals including mankind. By decreasing telomerase activity, cellular activity may

decrease rapidly, potentially speeding up the deterioration of the body, increasing the rate of aging and the early onset of debilitating physical conditions and the very real possibility of a variety of degenerative diseases. The prognosis of decreasing telomerase is not a pleasant one to think of, as bones, tissues, skin, hair, eyes, brain, hearing, and organs may more rapidly deteriorate, function less efficiently and lead to the potential of declining health and fitness. It is a potential threat to long term health, many skeptics believe, is hardly worth the marginal benefits that soy might possess.

Soy is generally a cheap substitute for crude base proteins used for nutrition, but its potential as a significant negative health factor from soy use is arguably alarming, including estrogenic activities which include even the potential to harm the fetus in the womb to the adult. It has the potential to affect the ability of males to develop normally and females to over develop. Besides the many potentially harmful effects including carcinogenic ones, has concerned researchers, now the depleting of telomerase activity by soy consumption is alarming, with its potential in decreasing lifespan, accelerate health and physical deterioration is well worth considering by consumers of what was once thought to be a safe alternative food source by many.