Gut bugs, aging and heart health

Vienna Brunt

The secret to cardiovascular health may rest in your gut. A new CU Boulder study found a link between age-related changes in gut microbiome and the development of cardiovascular disease, says lead author of the study Vienna Brunt.

CUT 1 “So this study for the first time establishes a link between adverse changes in the gut microbiome and changes that occur to the arteries as we age, which can then increase the likelihood of developing cardiovascular diseases. (:14) So an increased prevalence of microbes that are pro-inflammatory and have been previously associated with diseases.” (:20)

Brunt is a post-doctoral fellow in the integrative physiology department. To secure the findings her team of researchers gave older mice antibiotics to eliminate all gut bacteria.

CUT 2 “The idea with this is that with aging you have an increase prevalence of microbial species in your gut that can have adverse effects. So by putting them on antibiotics we could suppress the presence of these microbes and we could therefore look to see if suppressing these adverse microbes in the gut microbiome with aging could restore the health of the arteries back up to young levels. (:23) So this is the very first study to show that there is a link between changes in the gut microbiome with aging and vascular dysfunction.” (:31)

Brunt says it’s important to stress that using antibiotics in the study was strictly as a tool to manipulate the microbiome in the mice. She does not recommend people take antibiotics in the hopes of improving their cardiovascular health.

CUT 3 “We are absolutely not saying that someone should go out and take antibiotics. There’s a bunch of side effects associated with doing that that we do not want.” (:10)

But, she says, by identifying gut bacteria as an agent for diminishing cardo health as we age health researchers can now target it to find a way to promote better microbiome health as we grow older.

CUT 4 “But what is does is instead it established the gut microbiome now as a target to be able to develop other interventions to promote health. (:09) It’s been established for a while that healthy diets can promote gut microbiome health and so that is likely the best place to start looking for interventions that we can use to target gut health as we age. (:24) For example, diets that are low in fat, low in sugar and high in fiber have been known to be heart-healthy for a long time.” (:31)

For more information on the study go to <https://www.colorado.edu/today/2019/03/18/fountain-youth-heart-health-lies-gut>.