Philip Till: It's 6:19, good morning to you. Hope you're standing up. Now we've been hearing for a very long time that a sedentary lifestyle is bad for us, usually associated with putting on lots of weight. But there are all kinds of studies around, a new one talking about how having a sedentary lifestyle actually affects our heart and our other organs in our body. And we've got Dr. Chuck Matthews on the line to talk about this, a national cancer institute investigator, also the author of several studies on sedentary behavior. Good morning to you.

Chuck Matthews: Good morning, Phil. Thanks for having me.

Philip Till: Are you standing up?

Chuck Matthews: I am, actually.

Philip Till: That's a good start. Now again, repeating what I was saying, we've all heard about putting on weight if we sit around so much, but this is perhaps even more serious than that?

Chuck Matthews: Yeah. I think so. It's been interesting to do research in this area. The average adult spends more than half their day sitting around or in sedentary behaviors, and this happen in their cars, at the desk at work, watching television in the evenings at home, and many other sort of sedentary sitting activities we do throughout the day. Our new measurements suggest that people may spend as much as ten hours a day sitting, and this is important because for forever, we’ve recommended a few hours a week of exercise to keep people fit, keep people healthy, and reduce the risk of chronic diseases. What we're learning now is that may not be quite enough to do the full sort of health effect that we expected it to.

Philip Till: Where is the biggest impact, then, of sitting around on our bodies, what happens to us?

Chuck Matthews: Most of my research is focused on how too much sitting influences the risk of chronic disease, early mortality, mortality from heart disease and the risk of getting certain kind of cancers. And what we found is too much sitting, even after we consider body mass index and how fat someone is and how much other activity they do still has an increased risk of many of these disease. So it's quite important.

Philip Till: So you mentioned cancer, is that -- is sitting around or being sedentary a contributor to cancer? How does that work?
Chuck Matthews: Yeah. One of the important things I think it does is too much sitting reduces the overall amount of activity we do, the weight gain is an issue, we now know that excessive weight gain is associated with as many as ten or twelve different kinds of cancers. And we're still learning a lot about this, but it seems to be that too much sitting independent of activity is associated with increased risk of colon cancer, probably endometrial cancer as well, but these are -- we're still in early days and need to do more research there to clarify. But some interesting and sort of strong clues so far.

Philip Till: Want to pick up on that with you, we'll continue our discussion with Dr. Chuck Matthews. [Break for commercial deleted] Continue our discussion with Dr. Chuck Mathews about studies coming forth saying that sitting around, being sedentary, really isn't just a matter of putting on weight, but it could lead to more serious diseases, if you will. But when you think about it, it all starts in the home—we sit around. We go to school—we sit around in the classroom. We go to work—we sit around in the office, we come home—we sit around watching TV. So the whole spectrum has to change there. But back to the idea of diseases, Dr. Matthews, is there evidence of colon cancer and other diseases because of a sedentary lifestyle or are we extrapolating something here?

Chuck Matthews: There's pretty good evidence. You know, one of the longest, most well established relationships between physical activity and exercise and a given cancer is with colon cancer, where people who are less active have an increased risk of colon cancer. And we're just now beginning to investigate the question of whether and how much sitting contributes to that risk as well. And the early studies suggest it is linked. Probably because of the relationships with increased weight gain and sort of I guess the adverse metabolic effects of sitting around too much. If you're not using your muscles, your metabolism shifts to a less healthy state and use of your muscles helps counteract that. So that's where one way sitting could have an adverse effect.

Philip Till: And it all does seem to come back to this business of weight gain, it always kind of comes back in that direction.

Chuck Matthews: Yeah. That's an important contributor, but not necessarily the complete story. In our studies, we’ve controlled for weight gain, and it's still important. So even if you are a few pounds overweight the sitting is still -- reducing sitting may still be of benefit for you.

Philip Till: By how much a day?

Chuck Matthews: By how much a day? That's a great question. We don't know that yet, actually. Early studies use fairly crude measures of sitting, and to be honest with you for disease risk, we don't have a great idea for that. For television viewing, the risk seems to increase for certain mortality outcomes around three to four hours a day. People who watch TV more than that seem to be at elevated risk, even if they're regular exercisers. So television viewing is probably one area that is certainly one of our major leisure activities that's sedentary and could be ripe for reduction for helping your health.

Philip Till: Dr. Chuck, thank you for joining us this morning.
Chuck Matthews: You bet. Thank you.

Philip Till: Bye-bye now, Chuck Mathews, who is a National Cancer Institute in the U.S. investigator with us on the line there, live on the line, from Maryland. The news is next.