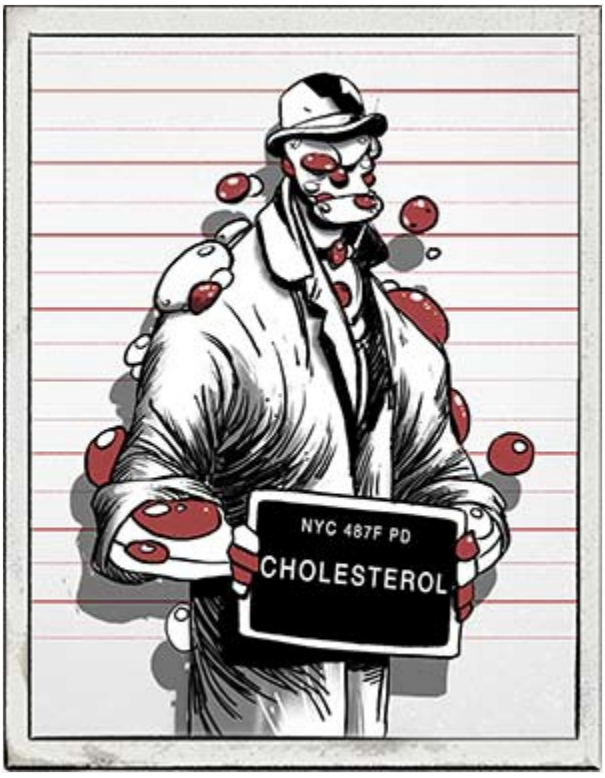


Photo: CQ MSF Films Inc

The Cholesterol Question - Film.

For almost 50 years, the word has evoked fear.

When people started dropping dead in alarming numbers after WWII, a massive investigation was launched, and it wasn't long before this essential bodily substance was targeted as a primary suspect. Big industries jumped at the chance to help us put it behind bars. First it was trendy low-fat and low-cholesterol diets and food products. Then came cholesterol-lowering medications like **statins**– now amongst the best-selling drugs in the history of medicine. More than any other risk factor, cholesterol has loomed large in the public imagination.

It always seemed like a simple equation. Cholesterol is found in the plaques in our artery walls where heart attacks begin. People with heart disease tend to have higher levels of the "bad" LDL cholesterol. So lowering bad cholesterol seemed to make sense.

But surprising facts remain: Roughly 50 percent of those admitted to hospital for heart attacks have "normal" cholesterol levels. Many people with high cholesterol have healthy hearts.

How much do we really know about cholesterol? Have our attempts to lock this culprit up been misguided?

While great progress has been made in the fight against heart disease, it is not clear that lowering cholesterol with statins has been the major factor. Scientists are now worried that increases in diabetes and obesity are the things that will trigger a new surge in heart attacks.

And what cutting-edge clues beyond cholesterol are scientists now following to help keep the silent killer at bay?

Aaron Holm has high cholesterol levels and is taking steps to avoid heart disease. Photo: CQ MSF Films Inc.

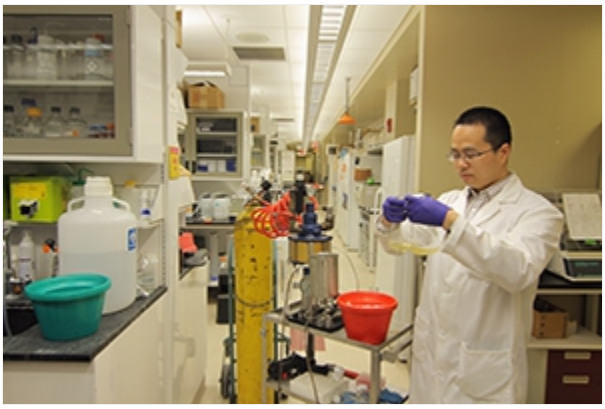
The Cholesterol Question is a hard-hitting investigation into the heart of cholesterol's controversial journey, from essential biological substance to Public Enemy Number One and possible rehab. It's a villain that's simple to understand, easy to implicate and, we thought, easy to medicate. But it's a story almost stranger than fiction.

At Stanford University, Dr. Christopher Gardner reveals the debatable science behind our assault on dietary fat and cholesterol – a massive intervention that many believe only made us fatter and sicker. For years we were told to avoid dietary cholesterol in foods like eggs. But how strongly does dietary cholesterol influence levels of cholesterol in our blood – most of which is made by the human body? Meanwhile, saturated fat raises LDL cholesterol, along with the "good" HDL cholesterol, but does science support the long-standing public health campaign against it? Has the war on fat had unintended consequences?

Across the country, Brown University's Dr. Barbara Roberts questions our wholesale embrace of statins, the best-selling drugs of all time. Unlike other cholesterol-lowering drugs, many of which have been prescribed for years despite inconclusive evidence they actually save lives, statins have been proven to significantly reduce risk for people with established heart disease. But Dr. Roberts is one of a growing group of critics who argue that statins don't offer substantial protection to the many millions of lower-risk patients who are taking them worldwide. With some national health organizations now encouraging doctors to prescribe them even more widely, the debate has never been fiercer.

Still, most experts agree: statins have not been the magic bullet everyone hoped for. Fifty to seventy percent of people on them continue to have heart attacks. What else can be done to stop the scourge? We meet scientists searching for the "dark matter" that could unlock the remaining mysteries of heart disease. Is it in our genes, stomachs, or our artery walls?

In his high-tech lab at Harvard University, renowned cardiologist Dr. Paul Ridker leads us through his ground-breaking investigations into inflammation – a human response that normally helps us heal, but may also be a crucial element in driving the development of heart disease.



Technician at the Cleveland Clinic Photo: CQ MSF Films Inc.

At the world famous Cleveland Clinic, original thinker Dr. Stanley Hazen is cutting into our long-held beliefs about red meat and heart disease. Unconvinced that saturated fat and cholesterol can fully explain red meat's connection to the disease, he's breaking new ground by examining how our gut flora mediates the ways in which food affects our health.

And from McMaster's Population Health Research Institute to a secluded lakeside village in northern Italy whose inhabitants have mysteriously healthy hearts, we meet scientists trying to unlock the oldest case files of all: DNA. Can new secrets for stopping heart disease be uncovered by mapping the human genome?

The Cholesterol Question deconstructs cholesterol's fascinating story for the average viewer – taking them through a scientific caper that debunks conventional wisdom and travels to the frontiers of heart health for new answers. Thursday, October 30, 2014 at 8 PM on CBC-TV