

New research shows saturated and trans fats increase risk of severe heart attacks

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It has long been known that saturated or trans fats can cause clogged arteries that lead to heart attacks, but new research shows that too much fat can worsen the severity of a heart attack - and disrupt heart rhythm, increasing the risk for sudden cardiac arrest.

"We know saturated and trans fats cause cholesterol build-up in the arteries, but it can also accumulate in the heart cells and affect the way the cells conduct electricity and contract properly," says Dr. Peter Light, a researcher and professor with the University of Alberta Faculty of Medicine.

A heart attack occurs when a blood vessel in the heart becomes clogged, restricting blood flow to a portion of the heart. A sudden cardiac arrest occurs when the heart beats abnormally, or stops beating altogether. Too much fat increases the potential for both life-threatening heart problems.

In an article recently published in the prestigious *European Molecular Biology Organization Journal*, Light notes that intracellular saturated fats can cause an excessive build-up of calcium within the heart cells. This abnormal calcium level disrupts the heart's electrical flow, causing heart cells to dangerously hyper-contract, without a normal rest period in between beats. Light's research also shows that 'good' fats such as polyunsaturated and fish oils do not have this effect.

"The more saturated fat you have circulating in your heart cells at the time of a heart attack, the more severe the attack may be," he said. "By

controlling the amount of saturated and trans fats in our diet, we can likely reduce the risk of sudden cardiac arrest and reduce the incidence of damage if we have a heart attack."

Saturated fats are animal products that tend to be solid at room temperature and melt when heated - e.g. meat, lard, poultry skin and butter. Trans fats are artificially created hydrogenated oil. These are used for cooking or 'hidden' in packaged products to increase their shelf life - examples are crackers, cookies, donuts, pastries, muffins, croissants, snack foods, french fries and breaded foods.

You can reduce the amount of saturated and trans fats in your diet by avoiding packaged foods, such as block margarine. Instead, cook with oils or soft tub margarines that are high in mono and polyunsaturates, for example, canola, olive, safflower or sunflower oils. Avoid low fat spreads for baking as they contain a high percentage of water and do not work well for baked products.

Not all fats are bad for you, however, says Capital Health's Helen Stokes, Regional Program Manager, Cardiac Rehabilitation. "It's important to reduce saturated and trans fats but increase the amount of good fats, the mono and polyunsaturated fats, which are found in canola, fish oils and flax oil."

Source:University of Alberta

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