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Condoms are made of polyurethane, which could be made of canola oil  
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## How to Make Condoms from Canola Oil

### *Polyurethane plastics from vegetable oil*

Plastics are probably the most widespread artificial material in the world, mainly due to the low price and incredible versatility which led to a rapid expansion of plastic compounds in almost all industry areas. However, there's one problem. The same characteristics that made plastic so popular today are the main cause of pollution, since all plastics are durable and degrade very slowly. The fact that they are made of oil, the price of which is continually rising, will make plastics made from this fossil fuel more expensive. Now, a Canadian company has pushed the idea of environmentally friendly plastic further than any other producer, with a novel technology that promises to create polyurethane plastics from canola oil. Suresh S. Narine and Xiaohua Kong wrote a study in the monthly journal *Biomacromolecules*, edited by the American Chemical Society, where they presented the new discovery and the properties of the vegetable-based PUR sheets they developed. Polyurethane is a polymer consisting of a chain of organic units joined by urethane links, used in many industry areas, to produce elastomers, high performance adhesives, but also condoms. These materials are highly versatile and more common around households than many people think, being found in paints, flexible foam in upholstered furniture, thermal insulation in walls, and shoes. The new PUR sheets developed by the two researchers use an improved production method that relies on canola oil instead of fossil oil. The canola oil is treated with ozone to make the chemical raw materials for the new plastics, without complex technological processes and equipment and at a fraction of the cost at which they are currently being produced. Another advantage is the fact that they exhibit "excellent" mechanical properties, which make them a potential candidate for a variety of commercial applications in the near future. The report doesn't specify whether future condoms will be made of canola, too, but it doesn't exclude this possibility, either. "It is reasonable to believe that the vegetable-based PUR could be a potential candidate to replace or practically replace petroleum-based PUR, in sensitive and high end applications such as in the biomedical area," concluded Narine and Xiaohua's report.