# Understanding the beneficial effects of using designer lipids in the formulation of bakery products.

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**Abstract:**

The designer lipids (DL) synthesized using enzymatic acidolysis were used as a potential substitute for palm oil shortening (POS) in cookies. DL showed higher oxidative stability than POS and there was no trans-fat found in the case of DL, offering an advantage as compared to significant trans-fat in POS. The unique fatty acid profile of DL containing about 62.9 ± 0.1% caprylic acid and 28.3 ± 0.0% linolenic acid enhanced the nutritional properties of DL and thus the cookies. The DL-based cookies showed a higher spread ratio, higher set time, and quick spreadability which are highly desirable. Due to the lower aeration properties of DL, the cookies were harder than POS-based cookies. The overall acceptability in terms of sensory attributes evaluated for 28 days was higher for DL-based cookies. The DL proved to be a potential healthy replacement for commonly applied bakery POS having various health issues.