Cheese added to a low fat diet does not affect serum lipids
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Background: Dietary fat is the major macronutrient that modifies lipids and lipoproteins. Saturated fat increases LDL, HDL with minimal effect on triglycerides. Part of the French Paradox is high intake of cheeses and low rates of CHD. The effect of cheeses on serum lipids has not been investigated.

Method: 20 patients had baseline cholesterol, 4 week low fat (LF) diet (<25% of calories as fat) followed by 4 week cheese diet (100g of camembert daily, 32-35% of calories of fat). Plasma Lipids were measured at baseline, after LF, and after cheese diet. Patients had dietary counseling at LF and cheese. Food intake was assessed by 3 day dietary diaries at the end of each diet period.

Results: During LF compared to baseline, Total cholesterol, HDL and LDL (Friedewald calculation) dropped significantly (p=0.001, p=0.0001 and p=0.008). No other changes were detected.

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Low Fat</th>
<th>Cheese</th>
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</thead>
<tbody>
<tr>
<td>TC mmol/L</td>
<td>5.44</td>
<td>5.14</td>
<td>5.31</td>
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<tr>
<td>Triglycerides mmol/L</td>
<td>1.30</td>
<td>1.45</td>
<td>1.58</td>
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<tr>
<td>HDL mmol/L</td>
<td>1.47</td>
<td>1.32</td>
<td>1.39</td>
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<tr>
<td>LDL mmol/L</td>
<td>3.38</td>
<td>3.16</td>
<td>3.20</td>
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<tr>
<td>Weight kg</td>
<td>78.1</td>
<td>77.6</td>
<td>77.6</td>
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</tbody>
</table>

Conclusion: On the background of a LF diet, including cheese is not associated with adverse effects on serum lipids. Fermentation presumably is responsible for these favorable effects.
High saturated fat diet does not affect gut contractility in the rat
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Background - High dietary levels of saturated fat has been shown to have adverse effects on the contractility of cardiac and vascular smooth muscles in normal or hypertensive animal models. In contrast, we have recently shown that dietary long chain (LC) n-3 polyunsaturated fatty acids (PUFA) may have beneficial effects on gut smooth muscle contractility (1,2) in rats. However, the effect of a relatively high saturated fat diet on gut contractility has yet to be determined in animal models of health and disease.

Objective - To determine the effect of high saturated fat diet on contractility of rat isolated gut tissue in the normotensive (WKY) and hypertensive (SHR) models.

Design - Twelve week old WKY or SHR male rats were fed the following diets for 12 weeks: high saturated fat (30%) low carbohydrate (46%); high carbohydrate (73%) low fat 3%; or 10% fat 66% carbohydrate (Control). Contractility of isolated ileal and colonic tissue was determined in an organ bath system in response to muscarinic and eicosanoid agonists.

Outcomes - There was no significant dietary effects on the sensitivity or maximal contractility due to muscarinic or eicosanoid agonist induced contraction in the ileum or colon of SHR or WKY rats. However, there was a significant depression in contractility in the ileum of the SHR in response to prostanoid (PGE\textsubscript{2} or PGF\textsubscript{2alpha}) stimulation.

Conclusions - In contrast to LC n-3 PUFA in fish oil (1,2), the saturated fat level in the diet did not affect the contractility parameters of gut smooth muscle. However, there appeared to be a defect in prostanoid receptor mediated signalling and contractility in the ileum of the SHR independent of the dietary effects.