

New Zealand Extra Virgin Olive Oil and Your Health – The Facts



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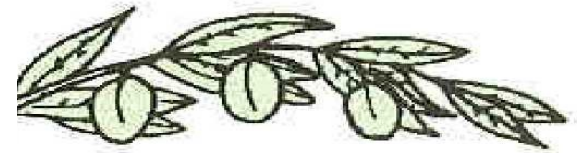
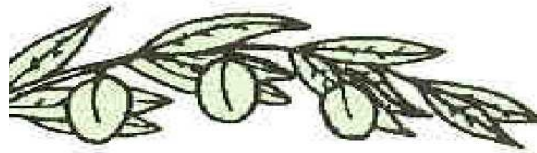
Estimated influence of diet on disease

- Cardiovascular >30%
- Cancers >35%
- Stomach disorders >70%
- Obesity >50%
- Diabetes type 2 >25%
- Dental caries >30%

Dietary Characteristics of the US vs. Greeks

	US	Greece
Fat % As Energy	39	37
Saturated Fat	18	8
Vegetables/day g/day	171	191
Fruits g/day	233	463
Meat	273	35
Life Expectancy at Age 45 (M)	27	31
Life Expectancy at Age 45 (F)	33	34
CHD (M) Occurrences per 1000	289	33
CHD (F)	54	14
Breast Cancer	22	8
Colon, Rectal Cancer (M)	11	3
Colon, Rectal Cancer (F)	10	3
Total Cancer (M)	102	83
Total Cancer (F)	87	61

British J. Nutrition (2000) 84, 5205 - 5209



What is the Traditional Mediterranean Diet?

- Lots of fruits and vegetables
- Multigrain products
 - Pasta, Rice, Wheat, Corn, Barley
- Fish
- Low in saturated fats and cholesterol
(Low in animal fats and meat)
- Wine in moderation
- Liberal use of EV Olive Oil of high quality not oxidised

Per Capita Consumption of Olive Oil

	kg/year	ml/day
ITALY	10.0	30
GREECE	18.5	56
SPAIN	10.5	32
UK	0.21	0.6
NZ	0.82	2.2
AUS	1.3	3.5



Antioxidants Are High in Mediterranean Diet

- Fennel, Olives, Red Wine, Polyphenols (olive) apples and edible wild greens-olive oil solubilises these active ingredients and makes them available in the body.
- Implications are to avoid old oils in plastic bottles, rancid nuts, deep fried food from take-aways (in tallow) and burnt food off barbecues.

Criteria for healthy oils

- Low in saturated fats <20%
- Adequate essential fatty acids
- Low in oxidation products (no rancidity)
- Contains other functional ingredients such as antioxidants
- Been subject of clinical trials or epidemiological studies
- Tastes great so you consume it regularly

How do you know which olive oil to buy in NZ?

- **When buying Extra Virgin Olive Oil, look for the red OliveMark[©]**
- **which ensures that the olive oil:**
 - Has passed the International Olive Oil Council's requirements to be certified as
 - Extra Virgin Olive Oil (Chemical and Organoleptic assessments)
 - Is packaged and labelled appropriately
 - Is guaranteed 100% New Zealand Extra Virgin Olive Oil.
- It must be Extra Virgin Olive Oil to have the associated medical benefits.
- **Simply the Best – New Zealand Certified Extra Virgin Olive Oil**

Fats high in saturated fat

- Butter 63% (same milkfat in cheese)
- Coconut oil 92%
- Meat fats 50%
- Cocoa butter 65%
- Palm oil 45%

Heart Disease

- Key biomarkers are cholesterol and triglyceride levels
- Blood pressure
- Blood sugar

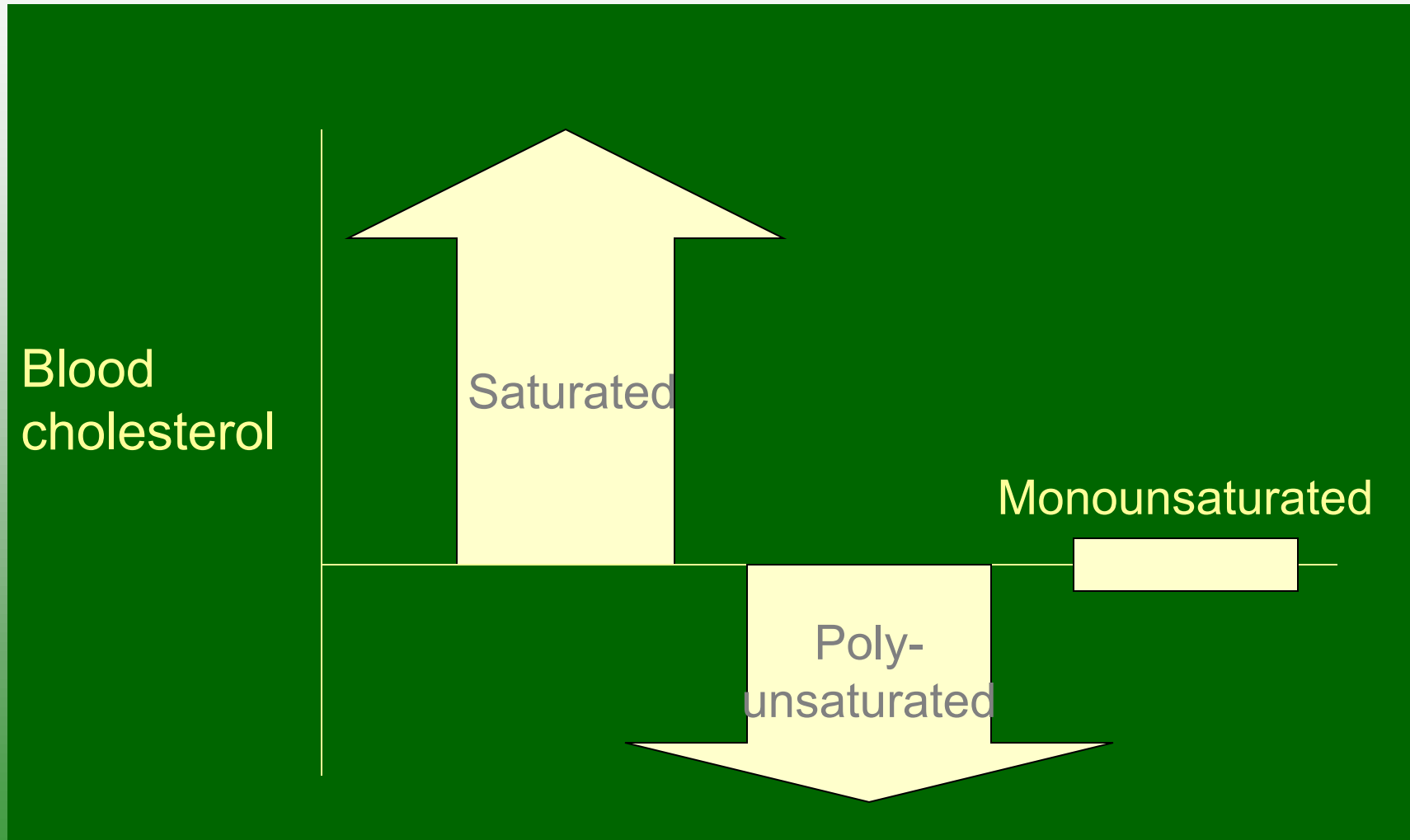
- The Mediterranean diet is shown to lower risk factors as opposed to diets high in saturated fat such as coconut oil.

Current medical advice low risk lipid levels

Do you know your levels?-check with GP

- Total cholesterol < 5.0 mmol/L

Fatty Acids and Blood Cholesterol



Potential Harm to Human Health From Oxidised Oils

- Oils in clear glass or plastic have significant levels of oxidation
- Even good initial quality EV oil will fast deteriorate in clear containers, the oil will go rancid and natural antioxidants will be destroyed.

Poor Quality Olive Oils-mainly imported RBD oils in clear glass

- Refined olive oils have the correct fatty acid composition (unless adulterated)
- They are low in antioxidants, chlorophyll and carotenoids
- They typically have high levels of oxidation, they are low in stability due to their lack of protective antioxidants
- EV oils in clear plastic or glass is also undesirable as up to 50 percent of Vitamin E and phenolics are lost over a few months due to light. They taste poor and do not add to the food experience
- New Zealand names are confusing and misleading- the terms Light and Pure are fraudulent

Classical view of How Do Natural Antioxidants Work?

- They prevent the formation of free radicals from unsaturated lipids
- Their measured efficacy is preventing the formation of peroxides which can lead to cytotoxic compounds which can damage cells and DNA.

Recent clinical trials on olive phenolics

- "Our study provides evidence to recommend the use of polyphenol-rich olive oil, that is, virgin olive oil, as a source of fat to achieve additional benefits against cardiovascular risk factors."

More studies are needed to examine virgin olive oil versus more refined oil and the risk for developing heart disease.

Covas, M. Annals of Internal Medicine, Sept. 5, 2006; Vol. 145: pp. 333-341. News release, American College of Physicians.

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What did the study find?

- One tablespoon(25ml) per day of EV oil had more favourable effects on HDL cholesterol than refined oil
- Polyphenol level was 366 mg/kg
- Comparison gives 500 mg polyphenols in 2 cups green tea
- 300 mg in a glass of red wine

Obesity

- Simply put energy intake exceeds energy output
- A healthy meal with olive oil provides satiety without excessive calories
- Olive oil tends to get turned into energy rather than depositing in your fatty tissue like saturated fats

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Inflammation and pain

- Too much omega-6 (linoleic acid) leads to the formation of pro-inflammatory substances which lead to arthritis and other inflammation-related diseases. This omega-6 is found in soybean, safflower and sunflower oils.
- Olive oil is a well-balanced oil in terms of nutrients and is well complemented by taking fish twice per week with your daily intake of 5 servings of fruit and vegetables.

Olive oil extracts vitamins from food

- EV Olive oil is a good solvent for omega-3 sources such as fish and green vegetables. It also solubilises Vitamins D , A and E and carotenes such as lycopene and lutein
- Omega -3 facilitates the absorption of calcium which promotes bone health.
- So do not eat your salad without olive oil

The Permitted Health Claim

USFDA

- “Limited and not conclusive evidence suggests that eating about 2 tablespoonfuls(23g) of olive oil daily may reduce the risk of coronary heart disease due to the monounsaturated fat in olive oil.”

Conclusions

- There is enough data and papers in the literature to make a common sense claim that establishing high quality EV Olive oil as a cornerstone of a very healthy diet is credible.
- There is a great deal of consumer credibility in that a high quality oil in a tasty and nourishing diet has got to be the only alternative for a long and happy life.