PLACE/INSTIUTION:	Medizinische Klinik Innenstadt der Universität München, Munich 2, Germany.
TARGET SAMPLE:	6 healthy men

Cod liver oil supplementation improves risk factors for cardiovascular disease

SUMMARY

People who regularly eat fish have less cardiovascular disease than those who do not and it is believed that the high content of the omega-3 fatty acids EPA and DHA in fish is responsible for this protective effect. The effect of supplementation with cod liver oil (rich in the omega-3 fatty acids EPA and DHA) was studied over a 5-month period on risk factors for cardiovascular disease. Six healthy volunteers supplemented their normal Western diet with 10-40 ml of cod liver oil per day for 5 months. Blood samples and analyses were taken at 0, 4, 8, 12, 16, 20, 28 and 40 weeks. EPA and DHA increased in red blood cells and clotting cells (called platelets) with higher doses of cod liver oil giving higher levels of EPA and DHA in those cells. During cod liver oil supplementation, blood triglycerides were lowered and the tendency for platelets to form a clot was reduced. The level of signalling chemicals which stimulate inflammation (such as clot formation and constriction of blood vessels) were reduced and at the same time, the signalling chemicals which reduce inflammation were increased. This indicates that CLO supplementation caused a shift in the balance of the chemicals which control inflammation, leading to a less inflammatory profile.

CONCLUSION

CLO supplementation had a positive effect on several risk factors for cardiovascular disease such as a reduction in triglycerides and an improved balance of inflammatory-signalling chemicals. This could be beneficial for reducing the inflammation associated with atherosclerosis and reducing the development of cardiovascular disease.

REFERENCE:

J Clin Invest 1985, 76:1626-1631

Long-term effects of dietary marine ω-3 fatty acids upon plasma and cellular lipids, platelet function, and eicosanoid formation in humans. C von Schacky, S Fischer, P Weber