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# Effectivity of Therapeutic Lifestyle Changes in Cardiology

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**Abstract**

Ischaemic heart disease (IHD) and stroke are the world's biggest killers. The good news is that 80% of cardiovascular diseases can be prevented with healthy lifestyle habits . The most effective approach to improve this situation is the wide application of the therapeutic lifestyle changes and the reduction of risk factors levels. Small positive shifts of risk factors, across a whole population consistently leads to greater reductions in disease burden than the huge investment to the new drugs and devices including invasive procedures. Convincing evidence has come from Finland, at the end of previous century, where the significant decrease of cardiovascular mortality was attributed in more than 50% to risk factors reduction and 23% to the treatment investments invasive procedures including . Motivation is a key element of cardiovascular prevention. It means in practice non-smoking, support for nutrition and behavior changes, regular and effective physical activities and obesity management mainly . The key element is implementation of the programs which support regular cardiotraining, education concerning right nutrition principles, relaxation, stress management and sleeping hygiene.

As for nutrition how much people with high risk profile for Ischaemic heart disease and stroke know the role of saturated fatty acids (saFA) and their recommended maximal daily intake (less than 10% of the daily energy intake i.e,. less than 30g in average) ? How much from them monitor their content on food labels? But the decrease of their intake about to 10% from daily energy intake and their substitution by polyunsaturatded fatty acids (polyunFA) leads to decline cardiovascular risk about 20-30% (4,tab.1)! The examples how to substitute saFA by polyunFA are in the tab. 2 and 3 . As for spreads, one portion contents about 20g of fat, one portion of animal fat spread contents 9g saFA, vegetable spread 3g saFA (an exeption is palm kernels oil with high saFA content) In the tab. 4 are presented FA contents in 100g of spread. The impact of dietary cholesterol on serum cholesterol levels is weak compared with that of the fatty acid composition of the diet. When guidelines are followed to lower saturated fat intake, this usually also leads to a reduction in dietary cholesterol intake. The trans fatty acids, a subclass of unsaturated fatty acids, have been shown to be especially harmful due to their unfavourable impact on both total cholesterol (increase) and HDL-C (decrease). A 2% increase in energy intake from trans fatty acids increases CAD risk by 23% and therefore is recommended to avoid them. They can occur especially in industrially prepared bakery products and some margarines.

The recommended fat intake principles were partially deconstructed by the results of PURE study . But there were some methodilogical restrictions formulated by American Heart Association (questionaire method, countries composition, missing separation of „good" and „bad" sacharids). Moreover, the autors have accepted that fat intake of 30% and saFA 13% from daily energy intake might be adequate and 13% means 36g saFA. In the tab.2 is presented an example of common daily menu containig 73g saFA! How much people know that adding 30 g unsalted nuts (not coconut!) daily decreases

cardiovascular risk about 30%.The same accounts for increasing the fiber content (9). The recommended daily fiber intake should be 30-45g but even in the daily menu including a lot of fruit, legumes and vegetables daily fiber intake reaches 20g (tab.6). Meta-analyses of prospective cohort studies show that a 7 g/day higher intake of total fibre is associated with a 9% lower risk of IHD and a 10 g/day higher fibre intake is associated with a 16% lower risk of stroke and a 6% lower risk of type 2 diabetes mellitus . There is known that a high fibre intake reduces postprandial glucose responses after carbohydrate-rich meals and lowers total cholesterol and LDL-C levels.Adequate proposals how to reach recommended fiber values must be based on increase of wholegrain cereals intake .

The Nurse study results (16 years duration, 180000 probands) showed, that the foood intake changes in the preferring of vegetables, fruits, whole grain cereals, legumes, nuts and fishes are reasonable, because they are followed by mortality reduction 26% .

All national and international guidelines for cardiovascular prevention and rehabilitation recommend regular and effective physical activities 150 to 300 min. of moderate-intensity exercise or 75 to 150 minutes of vigorous-intensity exercise each week for health benefits. This translates into an energy expenditure of 7.5 to 15 MET hours per week. That leads to a 31% reduction in all-cause mortality. In the many European countries were found impressive decreases of mortality for IHD in the last decades, even more singifficant: 40-60% . Benefit concerns not cardiovascular diseases





## Biography

Stefan Farsky is the Chairman of Slovak League against Hypertension since 1997, committee member of Slovak Hypertension Society, long term committee member, vice president and honorary member of Slovak Society of Cardiology, now the chairman of the working group for cardiovascular rehabilitation. 25 years acting as a lecturer and cardiologist in Faculty Hospital in Martin, Slovakia, in 1991-1993 vice dean of Jessenius Medical Faculty Comenius University in Martin. In 1995-1997 head of cardiology dept. at Cardiocentrum Roosevelt´s hospital in Banská Bystrica, Slovakia. Founder and head of Dom srdca in Martin since 1997 (coupling of cardiorestaurant and cardiofitness with dept. of cardiology for out-patients). Author of books “Pocket ECG” and “Nuclear cardiology”, author of social game for reaching optimal weight “CALORIES”.Cardiologist with special interest in cardiovascular prevention and hypertension. Fellow of European Society of Cardiology since 1991. National Fellow of the Specialist Certification of Obesity Professionals in Europe (EASO) since 2005 . He has received many awards for his research and publications. He has a flare for writing and also encourages her subordinates to go into researches on health issues. He is always willing to add more experiences to his years. He has published many research articles in the cardiology journals.

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