

Updated nutraceutical approaches for the treatment of cardiometabolic risk

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Nutraceuticals (nutrients or bioactive compounds) have pleiotropic functions such as antioxidant capacity, enzyme modulation, and gene transcription. A growing number of researches on nutraceuticals have attracted great attention to their role in cardiometabolic risk. Recently, several nutraceuticals were reviewed for their roles in lowering lipids, controlling glycemia, and modulating inflammatory responses. For example, fibers, phytosterols, and red yeast rice were revealed beneficial for lowering cholesterol through the intervention studies with a consistent good level of evidence. On the other hand, the effect of some other compounds (i.e. policosanol, and berberine) are controversial among the researches, and limited in specific population (i.e. lipid-lowering effect of berberine is almost exclusively carried out in Asians). In addition, the effect of soy products on metabolic disorders including hypertension, obesity, and glycemic controls were also controversial. The discrepancy among the researches may be related to the differences in study design (i.e. period, subject number, subgroup, etc.), subject characteristics (i.e. gender, age, initial health status, genetic background, etc.), properties of nutraceuticals (i.e. dosage, type of supply, etc.). To elucidate the effectiveness of nutraceuticals on cardiometabolic risk, well-designed further studies should be continuously performed and suggeste scientific evidences.