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## Cardiometabolic Risks Associated with Meat, Poultry and Egg Consumptions in Korean Adults

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The prevalence of cardiovascular disease (CVD) is high in both developed and developing Countries. Numerous studies have attempted to establish associations of unprocessed red meat, processed red meat, poultry, and egg intakes with CVD incidence and mortality. Most previous studies reported that red meat (both processed and unprocessed) consumption is a risk factor for CVD mainly because of its high saturated fat and cholesterol content [16]. Moreover, recently, world health organization designated processed red meat as a group 1 carcinogen, and a number of dietary guidelines that restrict processed red meat intake to prevent chronic diseases in adults have been published. However, there has been limited information on these associations between meat consumption and cardiovascular health in the Korean population. In general, the association between nutritional intake and disease risk shows a nonlinear U shape. According to the national data, the intake levels of meats are substantially lower in Korean population, compared to western countries where the majority of prior epidemiologic studies were conducted. For example, the range of processed red meat intake

related to the increasing risk of T2DM and CVD risks were 2–10-fold higher (10.5–56.2 g/day) than in the average intake levels (<5.4 g/day) of Korean adults. In addition, egg consumption has been a main cause of health-related concerns because eggs contain a high level of dietary cholesterol and might increase the blood cholesterol level, but the effect of high dietary cholesterol intake on the serum cholesterol level may be negligible because circulating cholesterols are not only derived from a diet based on animal sources but also synthesized by the liver and other organs in the human body. In fact, the US Departments of Health and Human Services and Agriculture changed the dietary guideline for egg consumption from limiting egg intake to deleting the limitation in 2015. The results of the studies conducted in western countries may not be suitable evidence for developing dietary guidelines for Korean population. Various investigations on the associations of meat (unprocessed/processed red meat, or poultry), eggs and other protein sources with cardiometabolic risks are needed through large-scale prospective cohort studies and RCTs in Korean population.