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**A clinical study for the effect of kimchi intake on colon health of Korean young adults** [10 font bold]

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We evaluated effects of kimchi intake on colon health of Korean young adults. For this study, 28 participants (age range 18~36) were assigned to two groups, consumed standardized kimchi (group S, n=14), anti-cancer kimchi (group A, n=14) 210 g/day for 28 days, respectively. All volunteers could take usual meal, except for antibiotics and probiotics. Serum, urine, and stool were taken from volunteers on the first and last (28th) days. We investigated nutrient intake, anthropometric measurement, serum markers [total cholesterol (TC), triglyceride (TG), high-density lipoprotein-cholesterol (HDL)-c, low-density lipoprotein-cholesterol (LDL-c), aspartate aminotransferase, alanine transaminase, alkaline phosphatase, insulin, leptin, adiponectin, interleukin (IL)-6, tumor necrosis factor (TNF)-α, and high-sensitivity C-reactive protein (hs-CRP)], and fecal markers (pH, β-glucosidase and β-glucuronidase). Kimchi consumption showed decrease in body fat mass and percentage. In serum markers, kimchi intake showed decrease in LDL-c (*P*<0.05), and increase in HDL-c (*P*<0.01) and adiponectin (*P*<0.05). Especially, group A exhibited significantly decreased in TC, TG, and IL-6 (*P*<0.05). In fecal analysis, kimchi intake showed decreased pH level, β-glucosidase, and β-glucuronidase (*P*<0.01). In conclusion, intake of kimchi can improve serum cholesterols, adiponectin, and effectively decrease fecal pH and harmful enzymes such as β-glucosidase and β-glucuronidase. Especially, anti-cancer kimchi has better effect on TC, TG, and pro-inflammatory biomarkers (IL-6 and hs-CRP) reduction. Thus, kimchi, especially anticancer kimchi intake can improve human colon health. [limit 250 words; 10 font; 1.5 line space; no figures nor tables]

*Should NOT include the* ***source of research support*** *or* ***key words****.*