The consumption of more vegetables and less meat is associated with higher levels of acculturation among Mongolians in South Korea

Although Mongolian immigrants are a rapidly growing population in South Korea, the 2 countries have distinct diets because of climatic and geographical differences. The Mongolian diet is mostly animal-based with few vegetables and fruits, whereas the Korean diet is largely plant based. The purpose of this study was to examine the association between acculturation and dietary intakes among Mongolians living in South Korea. We hypothesized that higher levels of acculturation would be associated with higher vegetable, fruit, and plant-based food intakes among Mongolian immigrants. A total of 500 Mongolian immigrants participated in this study conducted between December 2010 and May 2011. To measure the acculturation level, we developed an acculturation scale based on the Suinn-Lew Asian self-identity acculturation scale. Dietary intakes were assessed using the 24-hour dietary recall method. Associations between acculturation and dietary intakes were investigated using a general linear model adjusted for demographic characteristics. The participants were grouped into either a low-acculturation group or a high-acculturation group. The high-acculturation group reported significantly higher consumption of vegetables and rice and significantly lower consumption of meat, potatoes, and flour products compared with their low-acculturation counterparts. However, a higher level of acculturation was also significantly related to a higher intake of sodium. These findings could be used to tailor nutrition programs to different acculturation levels.

Increased acid output, accompanied with a defective defense system, is considered a fundamental pathogenesis of duodenal ulcer (DU). However, relapse of DU occurs despite proton pump inhibitors and H₂ receptor antagonists, hence imposing the enforcement of the defense system. Dried powder of the yam tuber (*Dioscorea* spp) has been used in traditional folk medicine as a nutritional fortification. We hypothesized that dried-yam powder would prevent DU through improvement of anti-inflammatory actions and carbonic anhydrase (CA) activity. Therefore, we investigated the preventive effects of dried-yam powder against the cysteamine-induced DU and elucidated the underlying mechanisms. Duodenal ulcers were induced in Sprague-Dawley rats by intragastric administration of 500 mg/kg cysteamine-HCl. The dried-yam powder was used as a pretreatment before the cysteamine-HCl. The number and size of DU were measured. The expressions of inflammation mediators were checked in duodenal tissues, and the expressions of CAs and malondialdehyde levels were also examined. Cysteamine provoked perforated DU, whereas dried-yam powder significantly prevented DU as much as pantoprazole and significantly reduced the incidence of perforation. The messenger RNA expressions of cyclooxygenase-2 and inducible nitric oxide synthase were remarkably decreased in the yam group compared with the cysteamine group, and the serum levels of proinflammatory cytokines including interleukin-1β, interleukin-6, and tumor necrosis factor were significantly attenuated in the yam group. Cysteamine significantly decreased the expression of CAs, whereas yam...
treatment significantly preserved the expressions of CA IX, XII, and XIV. In conclusion, dried-yam powder exerts a significant protective effect against cysteamine-induced DU by lowering the activity of inflammatory cytokines and free radicals and restoring the activity of CAs, except in CA IV. [Jong-Min Park, Yoon-Jae Kim, Ju-Seung Kim, Young-Min Han, Napapan Kangwan, Ki Baik Hahm, Tae-Sok Kim, Oran Kwon and Eun-Hee Kim*(CHA Cancer Prevention Research Center, CHA Cancer Institute, CHA University, Seoul, Korea), Nutrition Research, 2013, 33(8), 677-685].

NPARR 5(1), 2014-030 Baking properties and biochemical composition of wheat flour with bran and shorts

Bran, being a by-product of grain grinding, is characterised by a high biological value and is thus widely used in food production. In this study, different streams of bran and shorts from the wheat graded milling process were incorporated into wheat flour at levels of 5, 11, 17 and 23% (w/w) to investigate their influence on the nutritional and baking properties of flour.

Bran and shorts streams improved the baking properties of flour blends. The best result in the case of graded flour blends with different bran products was obtained at the 95:5 ratio. The products containing peripheral parts of grain had higher proteolytic enzyme and superoxide dismutase activities and lower trypsin inhibitor content and \( \beta \)-amylase activity compared with graded flour.

Streams of wheat milled fractions including peripheral parts of grain increase the content of bioactive substances and dietary fibre in blends with wheat graded flour [Leonid Kaprelyants, Sergey Fedosov* and Dmytro Zhygunov (Department of Physics, Odessa National Academy of Food Technologies, Odessa, Ukraine), Journal of the Science of Food and Agriculture, 2013, 93(14), 3611-3616].