

## 한국인에서 대사증후군 진단에 허리둘레/키 비율의 우수성

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### Comparison of Waist to Height Ratio and Body Indices for Prediction of Metabolic Disturbances in the Korean Population

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**Background:** The aim of the present study of the general population was to provide additive information whether body indices using body composition are helpful for predicting metabolic syndrome.

**Patients and Methods:** We identified adults who underwent voluntary routine health checkups. As a result, 15,965 participants were included in this study.

**Results:** The waist to height ratio (WHtR) had the highest AUC and was the best predictor of metabolic syndrome for both genders. In addition, the WHtR had the highest AUCs for components of metabolic syndrome (male: AUC 0.823, 95% confidence interval [CI] 0.814-0.832; female: AUC 0.870, 95% CI 0.863-0.877). There was a small statistically significant difference in AUC between WHtR and the other indices. Multivariate analysis findings were adjusted for age, mean daily alcohol intake, smoking, and physical activity. Multivariate logistic regression showed that male participants in the second, third, and fourth quartiles had a 4.0, 9.6, and 36.1 times increased risk of metabolic syndrome compared with patients in the first quartile and female participants in the second, third, and fourth quartiles had a 4.3, 18.0, and 58.5 times increased risk of metabolic syndrome compared with patients in the first quartile.

**Conclusion:** Among the body mass, fat mass, lean mass, skeletal muscle mass, trunk fat mass, and WHtR indices, WHtR is most useful to predict the presence of metabolic syndrome and insulin resistance in the Korean population.

**Key Words:** 허리둘레, 대사증후군, 인슐린 저항성

Waist circumference, Metabolic syndrome, Insulin resistance