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## Anthropometric study on Mongolians with metabolic syndrome

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Development of up-to-date technologies has changed the lifestyle of humanity and accordingly non infectious diseases, especially metabolic syndromes, which involve 20-25% of adults in the world, have been increasing. The metabolic syndromes which cause morphological changes alter the human body figure or human anthropometric measures. Recently we have found the studies on metabolic syndrome risk factors, but not the papers related to the anthropometric measurements. Thus there is a real need to determine the anthropometric measurements of Mongolians. Determine the human body figure types or the anthropometric measurement changes caused by the metabolic syndromes. 387 Mongolians aged 18-68 were involved in the study. Basic methods of anthropometric measurements, metabolic syndrome diagnosis and statistics were used in it. According to the defining of height differences, value of student distribution and statistical significant threshold between participants, healthy and with metabolic syndromes, of both sex, there were no evident variation. The statistical significance of the participants' humerus diameter because of obesity, caused by metabolic syndrome, was observed ( $P<0.05$  and  $P<0.01$ ). Also the body mass index (BMI) of the both type's participants has statistical great differences and it is shown by modified waist indexes ( $P<0.01$ ). Metabolic syndromes cause the statistical differences between diastole and systole of participants, both sexes ( $P<0.01$ ). In accordance with sex differentiation their BMI has statistically marked difference ( $P<0.01$ ). All in all the metabolic syndromes affect on human anthropometric measurements, especially it modifies the BMI more than the height. For healthy men and women the anthropometric indexes are in normal distribution. And according to the sex the men anthropometric indexes are different from the women. An average BMI for men is  $27.29\pm0.43$ , for women –  $24.95\pm0.28$ . In proportion to healthy and metabolic syndrome suffered participants the anthropometric indexes are in normal distribution. And according to the sex the men anthropometric indexes are different from the women. An average BMI for men is  $31.81\pm0.75$ , for women –  $30.53\pm1.32$ . The waist index, the most modified anthropometric criteria, of all participants explained by the metabolic syndromes caused overweight. There were no distribution differences.

### Biography

Dashdulam Tsanligryenchin obtained his Bachelor degree from Etugen School in 2010 and a Master degree from University of Health Sciences in 2012. He worked as a Teacher in the Department of Physiology at the Mongolian National University of Medical Sciences, School of Pharmacy and Bio-Medicine.

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