

## **Obesity and Serum Uric Acid**

Omar Khalid Alboqai, PhD\* Asad Abu Odeh, MD\*\*  
Huda M. Al Hourani, PhD\*\*\* Faisal Al-Qudah, MD\*\*

**Objective:** To study the serum level of uric acid among obese individuals and to identify the dominant risk factors for elevated serum uric acid.

**Setting:** International Academy Rehabilitation Sport, Irbid – Jordan.

**Design:** Cross-Sectional study.

**Method:** Three hundred healthy adult males aged 30-50 years were included in the study. The sample was divided into approximately equal three groups based on obesity categories. Plasma uric acid, total cholesterol, triglycerides, low density lipoprotein- cholesterol (LDL-C), high density lipoprotein-cholesterol (HDL-C), fasting blood glucose (FBG), blood pressure, height, weight and waist circumference were measured and a pre-tested. Structured questionnaire was administered by trained-interviewer.

**Result:** A graded increase of serum uric acid rates was observed with increased body weight and waist circumference. The serum uric acid among overweight and obese subjects compared with non-obese subjects were 5.6 and 10.8 times respectively.

**Logistic regression analysis** showed that the amount of body fat and distribution were the major risk factors for elevated serum uric acid; other factors such as obesity during adolescence, calories from dietary protein  $\geq 16.5\%$  and creatinine play a minor role.

**Conclusion:** Elevated serum uric acid is more prevalent in obese individuals. Obesity is the dominant risk factor for elevated serum uric acid.

***Bahrain Med Bull 2007; 29(3):***