

## Garlic protective effects on thyroid gland in amphetamine receiving rats

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### Background

Studies show that garlic has protective effects on various body systems. The aim of this study was to investigate the effects of garlic on serum levels of T3 and T4 in amphetamine receiving male rats.

### Methods

In this laboratory experimental study, male Wistar rats were randomly divided to control group, and normal saline, amphetamine (4mg/kg) and “amphetamine (4mg/kg)+ garlic extract (40mg/kg)” receiving rats. The injections were carried out once a week. After 6 weeks, blood samples were collected using cardiac puncture method and following serum collection, the levels of T3 and T4 were measured by radioimmunoassay. The data were statically analyzed using ANOVA.

### Results

The results of the present study show that there was no significant difference in serum levels of T3 and T4 in rats receiving normal saline compared with control animals. However, serum levels of T3 and T4 significantly increased in rats receiving amphetamine compared to control group ( $P < 0.05$ ,  $P < 0.01$ , respectively). Serum levels of T3 and T4 did not significantly change in rats receiving amphetamine+ garlic extract compared to control group.

### Conclusion

The findings suggest that garlic extract has protective effects against increased thyroid function in amphetamine receiving rats.