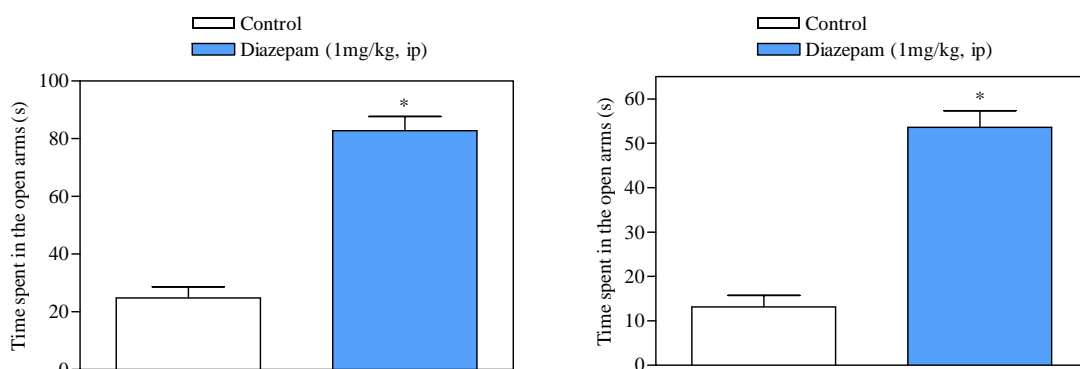


### 1. Introduction

The elevated plus maze (EPM) test is used to evaluate the relative anxiety status of mice or rats. The EPM situation rests on the conflict between the innate tendencies of rodents to explore novel environments and avoid open and brightly lit areas. In this task the animal is placed in the centre of the maze. From here it can walk down any of four runways. Two of the arms are well lit and open, and the other two are enclosed and dimly lit. Mice and rats prefer the closed arms but will venture out into the open arms. The amount of time spent in the open arms is recorded. "Anxious" mice or rats will spend little time in the open arms and make very few entries into the open arms. Anxiolytic drugs such as benzodiazepines increase the time spent in the open arms and increase the number of open arm entries in this test.

### 2. Compound testing

Compound testing addresses the effect of acute treatment (typically 15 - 60 min before the implementation of the test) on the total duration of time spent in the open arms. Investigation of the effect of subchronic treatment is also possible.



In mice (left panel) and in rats (Right panel), 1 mg/kg diazepam induces a significant increase in the time spent in the open arms.