



Title	Androgenic-Anabolic Steroids and Violence
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Aim

To review the scientific literature on the use of androgenic-anabolic steroids (AAS) to elucidate whether there is a connection between such use and aggressive/violent behavior.

identified 1,677 articles, whereof 146 were retrieved in full text. The HTA report is based on 25 of these studies. The studies finally included were read and discussed by all group members.

Conclusions and results

- There is good evidence that low doping doses influence the level of aggressiveness only slightly, or not at all.
- There is no evidence that moderate doping doses (75-200 mg AAS daily orally, or 50-100 mg daily as injection) increase aggressiveness.
- No studies have investigated different AAS concurrently or used repeatedly over long periods of time. Doses used in the experimental studies are far lower than doses used by many athletes. Accordingly, there is no evidence based on experiments of the effect of such regimens or doses.
- Experimental studies using the highest doses show some evidence that high doses of AAS in some individuals may trigger mania or hypomania, mental states that may include increased aggressiveness.
- Population studies show a clear association between the use of AAS, aggressiveness, and violence (both as perpetrator and as victim). It is unclear whether there is any causal connection. In subcultures with high use of AAS there is also more use of alcohol and illicit drugs, more high-risk behavior, and more acceptance of violent behavior.
- Some case series and several case reports describe persons who have used AAS and performed violent acts. However, these publications are purely descriptive and do not give good evidence on causality.

Methods

A literature search was performed in the following databases: MEDLINE, EMBASE, PsycLit, Toxline, INAHTA, and the Cochrane collaboration. The search