

Beta 2-agonists

Beta 2-agonists are a bronchodilator which cause dilation (widening) of vessels by relaxing the smooth muscle surrounding them. Inhaled forms include salmeterol, salbutamol, formoterol and terbutaline which are used for the treatment of asthma and exercise-induced bronchospasm (EIB).

Inhaled forms used for the treatment of Asthma and EIB have no performance-enhancing effect. When administered by injection or tablet form they are thought to have anabolic effects (increased muscle mass, reduced body fat percentage and faster recovery rates) and so their use is prohibited.

Side Effects

Side effects include tachycardia (rapid beating of the heart), palpitations (abnormal/irregular beating of the heart) headaches, tremors, nervousness, sweating, nausea and vomiting.

Status in Sport

All beta 2-agonists are prohibited except salbutamol, formoterol and salmeterol. Salbutamol, formoterol and salmeterol have a conditional status under the World Anti-Doping Code Prohibited List 2018 (effective 01/01/18).

The conditional status requires that the presence of Salbutamol in the urine does not exceed 1000ng/mL and that dosing does not exceed 1600mcg over 24 hours or 800mcg over any 12 hours. Formoterol concentration in urine cannot exceed 40ng/mL and that dosing does not exceed 54 micrograms over 24 hours

Athletes requiring the usage of these substance for medical conditions need to fill out a Therapeutic Use Exemption (TUE) form and submit it to the relevant agency.



Department of
**Local Government, Sport
and Cultural Industries**