

# cannabis contamination

## what is cannabis contamination?

Concern over the possible contamination of the cannabis product is widespread across Australia<sup>1</sup>. The contamination being referred to is the intentional or unintentional addition of potentially harmful substances to the cannabis plant, usually added to enhance the actual or perceived plant growth and quality.

Even though cannabis is usually perceived to be a natural or chemical free product<sup>2</sup>, approximately a third of Australians feel cannabis cultivated indoors is more contaminated with fertilisers, chemical sprays, growth hormones and pesticides<sup>1</sup>.

## is contaminated cannabis a problem?

When the cannabis plant is being cultivated, contaminants may be intentionally or unintentionally added<sup>3</sup>. Contamination can surface in any cultivation technique in any of three stages; in cultivation, storage and/or in retail.

### contamination in cultivation

Intentionally added chemicals include those added to enhance plant growth or for pest and disease control. Although chemicals, such as nitrogen and potassium, added to enhance plant growth have the potential to harm users, it is not thought to be a widespread problem. The harm is restricted to cannabis grown in areas with heavy metal content in soil<sup>3</sup>. However, those chemicals added for pest or disease control are potentially more concerning. Laws exist in Australia that govern the use of pesticides<sup>4</sup>, however as cannabis is an illegal drug, there are no such guidelines for its cultivation. Unfortunately, at present there has been no research into the extent of this potential problem. Interestingly, one Dutch study has shown traces of pesticides in cannabis, but not in an amount likely to cause harm<sup>5</sup>.

### contamination in storage

While cannabis is being stored (during cultivation or by the user) certain types of moulds and fungi may unintentionally grow on the plant. These moulds have been identified to usually be *Aspergillus flava*, *Streptococcus* or *Penicillium*<sup>3</sup>. This type of contamination has been identified in Dutch coffee shops<sup>6</sup>. Although it is believed that the moulds and fungi can be cleaned from the plant by flushing them with water, this is perceived to be less likely in indoor cultivation<sup>7</sup>. The health consequences of this type of contamination remain to be adequately researched.

### contamination in retail

Some substances can be added by retailers to increase the weight or perceived quality of cannabis. Recently in the United Kingdom there have been reports of glass beads being added to increase the weight of the plant and mimic the appearance of greater potency<sup>8</sup>. Separate reports of lead particles being added to increase weight have also more recently appeared<sup>9</sup>. These occurrences although rare, have resulted in hospitalisations and shortly after, the UK Department of Health issued a public health warning<sup>10</sup>.

## references

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