

## Therapy guidelines

The Viscum-Vet Group uses the mistletoe preparation **Iscador®**. This preparation uses fermented extracts of leaves, stems, buds and ripe berries during the winter harvest. Different preparations can be distinguished on the basis of the host trees on which the mistletoes were harvested. In animals, **Iscador® P** (pine mistletoe), **Iscador® M** (apple tree mistletoe) and **Iscador® Qu** (oak mistletoe) are most commonly used.

Further information on the mistletoe preparation can be found at [www.iscador.com](http://www.iscador.com)

**Iscador®** is usually administered by subcutaneous injection. Depending on its effectiveness and the stage of disease, the therapy can last from a few months to several years. For some tumour diseases, the preparation can also be administered orally.

Mistletoe therapy is very well tolerated in animals. However, cancer is a serious disease, the course of which should be closely monitored by a veterinarian.

## Therapy options

Your veterinarian can register at [www.viscumvet.org](http://www.viscumvet.org) using the contact form and obtain all the information required for mistletoe therapy.

Further informations about mistletoe therapy for animals you will find under [www.viscumvet.org](http://www.viscumvet.org)

## Contact persons

### General questions and small animals



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# FiBL



## Mistletoe therapy Support in cancer treatment of animals





### Tradition in human therapy

Already the Celtic druids worshipped the mistletoe as the "all healer". In anthroposophical medicine, extracts of white-berry mistletoe (*Viscum album* L.) have been used for more than 100 years in the therapy of cancer patients.

### 20 years of veterinary research

The veterinary *Viscum-Vet* Group investigates mistletoe therapy for tumour diseases of horses, dogs and cats at the FiBL (Frick), in cooperation with the Society of Cancer Research (Arlesheim). Clinical experience has also been gained with other pets and farm animals. So far, mistletoe therapy has been used for many different types of tumours, so that a wealth of experiences are available. In the case of fibrosarcoma in cats, breast tumours and oral melanomas in dogs and equine sarcoid in horses, studies are already conducted showing the effectiveness of mistletoe therapy. In the well-known textbook for equine oncology (*Clinical Equine Oncology*), mistletoe therapy is an integral part of sarcoid treatment.

Tumour diseases in horses, dogs, cats and other pets cause fear and worry in the pet owner. They want the best possible treatment for their pet. Mistletoe therapy can be a supplementary option to basic tumour therapy to support the affected animal.

### Improving the Quality of Life

The primary goal of mistletoe therapy for tumour diseases is to improve and maintain the Quality of life of the affected animals. Many pets, especially dogs, show a rapid improvement in their general condition during mistletoe treatment, with deeper relaxed sleep and an improved appetite. Older animals are often more active on their daily walks. Tumour-related pain can be reduced, the immune system can be strengthened and the side effects of chemotherapy and radiation therapy can be diminished. In small animals, mistletoe therapy can extend the survival time after basic tumour therapy even if the tumour is still there and the general state last well to very well. In some animals, a retardation of the tumour growth has been observed up to the growth stagnation of the tumour. In virus-induced tumours like equines sarcoid or sticker sarcoma, the tumour can also completely disappear.

Mistletoe treatment can be performed before or after tumour surgery, after or during chemotherapy or radiation. However, it is also used as the sole, primary therapy for equine sarcoid. If a cure for cancer is no longer possible, mistletoe therapy is used palliatively to alleviate the disease.

### Various modes of action

Mistletoe extracts are plant complexes with a large variety of different biologically active ingredients. Mistletoe lectins and viscotoxins are best studied. However, other ingredients such as peptides, oligo- and polysaccharides, flavonoids, thiols and triterpenes also contribute to the efficacy. Therefore, whole plant extracts are always used and show various important effects in cancer treatment. On the one hand they selectively attack the tumour cells, on the



other hand they "remind" the tumour cells of their natural cell death (apoptosis). In addition, they inhibit the formation of new blood vessels that the tumour needs to grow. They are anti-inflammatory and prevent radiation damage as well as side effects of chemotherapy. The Mistletoe preparations have a so-called immunomodulating or regulating effect: the immune system can be stimulated and also excessive reactions are attenuated.

Mistletoe preparations have a so-called immunomodulating or regulating effect: the immune system is stimulated and excessive reactions are attenuated. Mistletoe extracts have a good effect on many animals. However, there are also animals that do not respond to mistletoe therapy (so-called "non-responders"). In some cases a change of the preparation or host tree might bring success.