

## HELP & ADVICE

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Name of animal: .....

Name of owner: .....

### Your appointments are:

at: ..... time: .....

at: ..... time: .....

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## Lab profile

Name: LABOKLIN GmbH & Co. KG  
Office: Bad Kissingen  
Founded: 1989  
Type: Laboratory for clinical diagnostics  
Qualifications: One of the leading laboratories in Europe  
Operating in: Europe, Asia, Arabian Peninsula  
Team: Over one hundred specialists and veterinarians  
Specialty: Research projects at the federal level

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## ALLERGEN-SPECIFIC IMMUNOTHERAPY IN HORSES



## HELP & ADVICE

The modern information series provided by your vet and LABOKLIN

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Picture credits: Fotolia, Laboklin, Dr. Regina Wagner

## What is allergen-specific immunotherapy (ASIT, hyposensitisation)?

ASIT is the practice of administering gradually increasing quantities of an allergen extract subcutaneously to an individual with IgE-mediated allergic disease over a longer period of time in order to ameliorate the symptoms associated with subsequent exposure to the causative allergens.

What does that mean? An individual allergen extract is produced specifically for your horse. The formulation of an allergen-specific immunotherapy is based on the results of previously performed allergy testing (prior condition: good correlation with medical history and clinical symptoms). Individualised solutions containing the substances that cause allergic reactions (= allergens) in your pet are prepared (only possible for environmental allergens: pollen, moulds, mites and insects, not for food allergens!). As an ASIT is formulated individually for each patient, there is a delivery time of about 3 to 4 weeks until you receive the allergen extract. Over a period of several months the allergens will be administered subcutaneously (under the skin) to your horse, initially in increasing concentrations and intervals in order to achieve higher tolerance of the immune system against these specific allergens. The success rate of ASIT is about 70 (pruritus and dermatological symptoms) – 80% (respiratory symptoms, RAO) and depends on many important factors (age of the patient, duration

of symptoms, and so on): the earlier you start with therapy, the higher the success rate will be!

## For which diseases is allergen-specific immunotherapy the most appropriate therapy?

Horses suffering from allergic diseases have a genetic predisposition for such diseases, and special antibodies (major IgE antibodies) against causative substances (= allergens) are formed. These antibodies can be detected in the blood by taking blood samples. Horses suffering from this type of hypersensitivity/allergy often show clinical symptoms like itchiness (with or without skin lesions), respiratory symptoms like allergic coughing (RAO) or hives (urticaria). This includes the typical appearance of the insect bite hypersensitivity (IBH, summer eczema, "sweet itch"), the atopic dermatitis and the so-called head-shaker-syndrome.

ASIT is only used for atopic dermatitis (environmental allergens). Horses suffering from this type of allergy show positive reactions to weed, tree or grass pollen, house dust and/or storage mites, moulds, various insects, animal dandruff or epithelia. Please note: this kind of therapy is not possible for horses suffering from food hypersensitivity (only avoidance of causative allergens leads to the amelioration of clinical symptoms).

Your vet has confirmed his/her clinical diagnosis of atopic dermatitis by a skin or blood test.



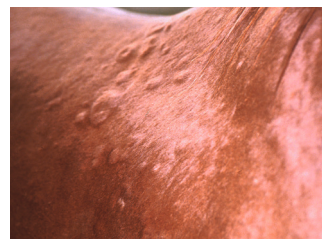
Now you know exactly to which allergens your animal is sensitised to. Thus, you should decide to choose an allergen-specific immunotherapy (ASIT, hyposensitisation) to alleviate the clinical symptoms of your horse.

## Application

In general, ASIT is recommended if the symptoms of your horse last longer than 3 – 4 months per year.

At the beginning of the therapy you need two vials of different concentrations. You need to consider the following:

- At the beginning, the subcutaneous injections will be performed once a week (initiation period). Then the intervals are gradually increased up to 4 weeks (maintenance period).
- You should adhere to these intervals. If you forgot an injection for not longer than a week, it is possible to carry on with the dosage plan without any difficulties.
- After the first injection of each vial the horse should be observed for 30 – 60 minutes in case of an adverse reaction (very rare).
- One hour before and after the injection the horse should not be fed.
- Excessive effort (exercise, riding) should be avoided during the first hours after the injection.



- Routine vaccinations should not take place on the same day as ASIT injections.
- The vials need to be refrigerated.
- The refill for the therapy needs to be ordered early enough to prevent relapses.

## Course of the therapy

At the beginning of the therapy, sometimes an additional treatment with other drugs is necessary, e.g. cortisone, so that the itching your horse experiences is bearable. Nevertheless you should try to use other drugs as little as possible, because the symptoms of your horse are used to control the success of the ASIT. If you use too much additional medication, it is possible that a necessary adaptation of the dosage plan is obscured.

The injections should be given in regular intervals, at first in increasing dosage. In 70 – 80% of cases ASIT shows good success rates. However, at the beginning it is not predictable if your horse belongs to the bigger group of good success, or if it unfortunately belongs to the smaller group which does not show any clinical improvement with this kind of therapy. You should be patient, though: some horses show an improvement after a few weeks, but the final assessment of the therapy can be done only after one year.

## What to do, if . . .

**...your animal does not respond well to the ASIT, or the symptoms get worse after initial success?** Consult your vet – probably you have to deal with an additional disease. That can be as simple as ectoparasites, secondary bacterial infection, but also a very different new disease. But it also could be necessary to adapt the interval, concentration or sometimes even the content of the ASIT.

**...the symptoms worsen with increasing dose directly after or the day after the injection?** Discuss this with your vet. Sometimes the next injection needs to be reduced by two steps (e.g. 0.7 to 0.3 ml). Afterwards, an increase can be tried again. If symptoms occur again, the injection dose will be decreased again, but only by one step. This dose can be considered as an individually detected maintenance dose for this animal.

**...the itchiness starts again directly before the next injection?** Talk to your vet. Sometimes the interval just needs to be decreased.

**...your horse responds well to ASIT?** You should not quit therapy, but maintain it as a lifelong treatment. You can try to increase the interval of injections and if necessary shorten again. If you interrupt therapy, despite having an excellent response to ASIT, the symptoms will recur (relapse), because an allergy is incurable. If you have stopped therapy for a longer period of time, you



need to restart with ASIT. The allergy testing also needs to be redone as the allergic spectrum may have changed, especially in the case of a long discontinuation of therapy. Furthermore, our experience and data show that after abandonment of therapy, success rates are not as favourable as they were at the first beginning of therapy. That means, if you restart ASIT after a longer period of time, it is possible, that the success rates will not be as good anymore. So we really recommend not to quit ASIT, especially if it really works well.

## Important

The injection plan is a guideline – each horse reacts individually, thus adjustments for each patient may be necessary. Observe your horse carefully and thus assist your vet to adjust the therapy plan specifically for your animal.

**An allergy is incurable, the majority (70 – 80%) can be controlled properly with ASIT, though!** Even if your horse responds very well to therapy, there may be periods when additional therapy is required. But with the help of ASIT these phases may be shorter and considerably less frequent.