



Patient Information on Radiosynoviorthesis

Preparation, treatment, safety and aftercare

Radiosynoviorthesis (RSO) is an outpatient nuclear medicine treatment for chronic inflammation of the inner lining of a joint (synovitis). It aims to reduce inflammation, relieve pain and improve mobility over the long term.

Who may benefit from treatment?

RSO may be considered when active synovitis has been demonstrated, for example in rheumatoid arthritis, psoriatic arthritis or chronic inflammation after injury or surgery.

Pre-treatment examination and treatment decision

Three-phase bone scintigraphy is required before treatment. It shows whether active inflammation of the joint lining is present. A physician will discuss the results and the individual treatment decision with you.

Tailored to the joint

- yttrium for large joints
- rhenium for medium-sized joints
- erbium for small joints

The medication is ordered specifically for the planned joints and treatment date. The joints to be treated therefore cannot be changed on the day of treatment.

Several joints in the same limb can be treated in one session, for example several finger joints on the same hand or several toe joints on the same foot. Both hands, both feet or joints in different limbs are treated at different times so that everyday activities are affected as little as possible during immobilisation. The specific treatment plan is determined individually.

Please keep your appointment

The preparation is manufactured individually for you and has a short shelf life. If you cannot attend, tell us as early as possible and cancel at least ten days in advance.

How long does treatment take and when does it work?

The injection itself takes only a few minutes. Please allow additional time for preparation, positioning, the control image and immobilisation. The effect develops gradually and may continue to build for up to six weeks.

Preparation and treatment

Radiosynoviorthesis

Anticoagulant medication

Never stop medication on your own

Never stop or pause anticoagulant medication without explicit agreement from the physician who prescribed it. Tell us about all anticoagulants before your appointment.

A pause on the previous day may be required for direct oral anticoagulants such as Eliquis® (apixaban), Xarelto® (rivaroxaban), Pradaxa® (dabigatran) or Lixiana® (edoxaban), but only when this has been explicitly agreed with you by a physician.

Marcumar® (phenprocoumon) and other longer-acting anticoagulants may be paused or changed only in consultation with the family physician or specialist who prescribed them.

Coagulation and skin

Bring a current coagulation result (INR/Quick value) if this has been agreed with you. If sufficient evidence is unavailable, treatment may have to be postponed for safety reasons. There must be no open or inflamed skin lesions around the joint to be treated.

Treatment procedure

1. The skin over the joint is thoroughly disinfected.
2. The joint is punctured.
3. Any joint fluid is completely aspirated.
4. The nuclear medicine medication is injected into the joint under X-ray guidance.
5. The puncture site is dressed and the joint is bandaged and immobilised. A final distribution scintigram documents the position of the medication.

Do not drive yourself

Do not drive a vehicle after treatment. Arrange for someone to accompany you, or use public transport or a taxi.

Aftercare and safety

Radiosynoviorthesis

The first three days

- The bandage applied immediately after treatment already immobilises the treated joint for 72 hours.
- The bandage remains in place for three days; the treated area should be cooled regularly.

Physical activity

Avoid sport and strenuous physical activity for six weeks.

Possible side effects and radiation exposure

Temporary pressure, irritation, mild pain or a reactive joint effusion may occur. Rare risks include tissue damage along the needle tract or transport of a small amount of the substance to nearby lymph nodes. As with any joint puncture, bacterial infection is possible despite careful sterile technique.

The radiation effect is almost entirely limited to the treated joint. The substances used travel only a few millimetres within tissue, so areas away from the joint and other people receive only very low exposure.

Quality assurance

Every individually ordered preparation undergoes the legally required quality controls before release. Only preparations that meet all specifications may be used.

Rare postponement

If a preparation fails quality control, it cannot be used for medical and legal reasons. As a replacement is often unavailable at short notice, the appointment must be postponed in this rare situation. We will then offer you the earliest available new treatment date.