



# OSPPOS<sup>®</sup>

(clodronate injection)

**The intramuscular  
bisphosphonate  
injection** for control of  
clinical signs associated with  
navicular syndrome in horses  
4 years of age and older



VIEW VIDEO



## THE PROBLEM / NEED

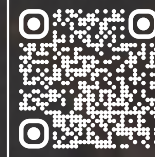
In normal bone tissue, there is a balance between bone formation and bone resorption. But in diseased bone tissue, this balance is disrupted.

Bone resorption means: the process by which osteoclasts break down the tissue in bones and release the minerals, resulting in a transfer of calcium from bone tissue to the blood. Lead to:

- 1- Navicular syndrome in horses 4 years of age and older.
- 2- Constant bone turnover, with osteoblasts forming bone and osteoclasts resorbing it.
- 3- Bone loss.

# WHAT IS A bisphosphonate?

VIEW VIDEO



**Bisphosphonates are a class of drugs commonly prescribed to prevent bone loss.<sup>1</sup>**

Bisphosphonates have been used for decades in human medicine to treat a variety of resorptive conditions, such as osteoporosis, osteopenia, and malignant bone neoplasia. While OSPHOS® (clodronate injection) is not used for this purpose in horses, knowing how bisphosphonates work in people will help you better understand this drug class, including the clinical efficacy and safety margins.



Osteoclasts cleaning up diseased bone

Bones undergo constant turnover, with osteoblasts forming bone and osteoclasts resorbing it. In normal bone tissue, there is a balance between bone formation and bone resorption; however, in diseased bone tissue, this balance is disrupted. Bisphosphonates inhibit bone resorption by encouraging osteoclasts to undergo cell death, leading to a decrease in the breakdown of bone.

Bisphosphonate drugs are characterized by a chemical structure that gives them the unique ability to bind to bone mineral and become internalized by osteoclasts. Bisphosphonates preferentially “stick” to calcium and bind to it.

Because most of the body’s calcium is stored in bones, these drugs accumulate to a high concentration only in bones. Bisphosphonates are incorporated into the bone mineral and are gradually released over months to years.



Osteoblast building bone

## WHAT IS OSPHOS?

**Bisphosphonates inhibit bone resorption by encouraging osteoclasts to undergo cell death, leading to a decrease in the breakdown of bone.**

### How efficacious is OSPHOS?

Over a 6-month field efficacy study, OSPHOS was demonstrated to be effective in controlling the clinical signs associated with navicular syndrome by decreasing the lameness grades of affected horses.

On day 56, 68 of 86 OSPHOS-treated horses and 1 of the 28 saline-treated horses were considered treatment successes.

For horses that initially respond to OSPHOS but do not maintain their clinical improvement for 6 months, the drug may be administered at 3- to 6-month intervals based on clinical signs.

If there is no response to initial therapy, the horse should be re-evaluated.

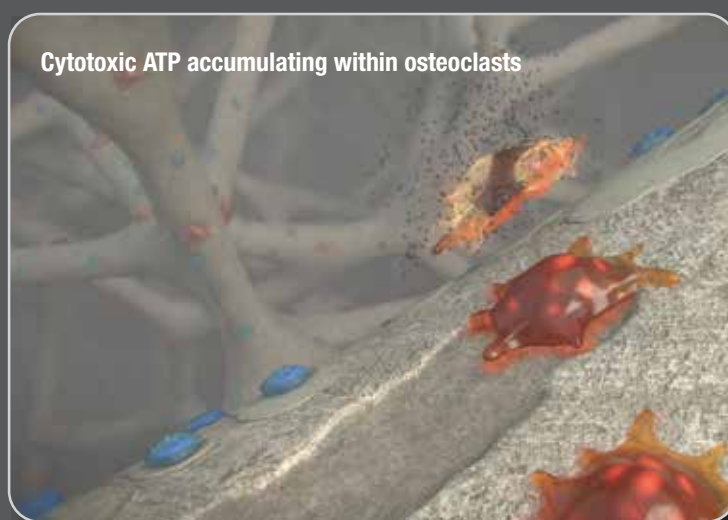
### How is OSPHOS administered?

Administer 1.8 mg/kg by intramuscular injection (IM) up to a maximum permissible dose of 900 mg per horse. Divide the total volume evenly into three separate injection sites.

Discard any unused portion of the vial since OSPHOS does not contain a preservative.

Osphos solution for injection is presented in a 15 ml vial sufficient to treat one horse.

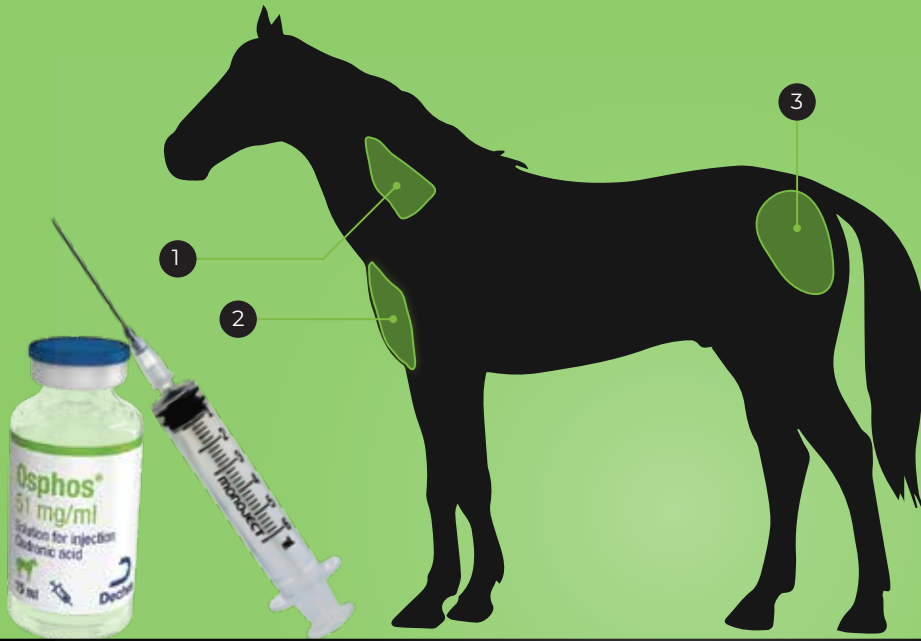
It is administered via **intramuscular injection** and should be evenly spread over 2 to 3 injection sites.



Cytotoxic ATP accumulating within osteoclasts

## Suitable sites for injection:

1. Centre Of The Lower Neck
2. Pectoral Muscles
3. Gluteal Muscles



### Recommended dosage

3ml per 100 kg  
of bodyweight

### Solution for injection

Disodium Clodronate 60 mg/ml  
as Clodronic acid 51 mg/ml

# OSPPOS<sup>®</sup> COMPETITOR OVERVIEW

COMPARATIVE POINT	OSPPOS <sup>®</sup>	OTHER PRODUCT
ACTIVE INGREDIENT	Clodronate	Tiludronic Acid
SITE OF ADMINISTRATION	3 separate intramuscular injection sites (neck, pectoral muscles, and/or gluteal muscles)	Intravenous infusion via jugular catheter, administered slowly over 90 minutes to minimize adverse reactions
ONSET OF IMPROVEMENT	28 days	60 days
DURATION OF EFFECT	Up to 6 months (full season)	Up to 4 months
INDICATIONS / USE	<ul style="list-style-type: none"><li>• Navicular syndrome</li><li>• Kissing spine</li><li>• Post-fracture recovery</li><li>• Bone loss</li></ul>	<ul style="list-style-type: none"><li>• Navicular syndrome</li><li>• Limited to 4 months</li><li>• Not effective for full season</li></ul>

## Note OSPPOS is:

### • Easily administered

IM administration over 2–3 sites is quick and easy, and avoids potential complications of IV administration/jugular venous catheterization.

### • Well tolerated

Side effects (injection site reactions and colic) are generally mild and self-limiting.

Renal side effects are rare and more frequently observed in animals concurrently treated with an NSAID

### • Proven efficacy

A robust clinical field study demonstrated that 75% of OSPPOS-treated horses showed improvement in lameness after 56 days, with 48% of the horses being sound (compared to zero placebo-treated horses).

65% of treated horses maintained this improvement after 6 months.



# Dechra Equine Lameness Solutions



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