

Evaluation of Radiographic Assessment in Stallion Candidates for the SBS Studbook

- The present table establishes the guidelines for **evaluating the radiographic assessment** of stallion candidates for the SBS Studbook.
- Each radiographic anomaly identified is taken into account when determining a score that reflects the osteoarticular status of the candidate. The final score, ranging from best to least favorable, is expressed from three to one star according to the following system:
 - **Three stars (***)** : No anomalies; “normal” evaluation for all criteria.
 - **Two stars (**)** : One or several “mild” anomalies and/or a maximum of one “moderate” anomaly.
 - **One star (*)** : Several “moderate” anomalies and/or one or more “severe” anomalies.
- Comorbidities within the evaluated joint (for example, but not limited to: joint effusion, presence of multiple concomitant anomalies within the same joint, signs of arthropathy) may lead to an increased severity grade. This assessment is left to the discretion of the specialist radiologists.
- The score primarily reflects a breeding risk related to the potential transmission of juvenile osteoarticular anomalies, as well as a risk of future clinical manifestations, based exclusively on the radiographic status of the candidate at the time of evaluation (it represents the osteoarticular condition at a specific point in time in a young animal).
- This evaluation system has no prognostic value regarding the candidate's sporting potential. Indeed, horses with an excellent score may show lower future performance than animals with a less favorable score, since performance is influenced by multiple factors not solely related to radiographic status.

Below are examples of the main radiographic anomalies observed in stallion candidates aged 2 to 3 years:

I – Juvenile abnormalities of osteochondrosis type

| Severity | Normal | Mild | Moderate | Severe |
|--|--|--|---|---|
| OC of the femoral trochlea | Normal or focal flattening with normal subchondral bone. | Extended flattening or slight concavity; subchondral bone normal to slightly irregular/sclerotic. | Extensive concavity or limited irregularity, with or without subchondral irregularity/sclerosis. | Moderate to marked irregularity/defect of the subchondral bone with subchondral irregularity/sclerosis, with or without osteochondral fragmentation, or trochlear dysplasia. |
| OC of the intermediate ridge of the tibial cochlea | Normal or slight flattening with normal subchondral bone. | More pronounced flattening with or without slight subchondral bone irregularity/sclerosis | Small, non-detached fragment with or without slight subchondral bone irregularity/sclerosis. | Larger fragment (detached or non-detached), or small detached fragment. Moderate to marked subchondral bone irregularity/sclerosis. |
| OC of the tibial malleoli | Normal. | Slight reduction in opacity without peripheral sclerosis. | Small fragment with or without slight subchondral bone irregularity/sclerosis. | Larger fragment with subchondral bone irregularity/sclerosis |
| Talus trochlear OC | Normal or focal flattening with normal subchondral bone | Extended flattening or limited concavity; subchondral bone normal to slightly irregular/sclerotic. | Extensive concavity or limited irregularity with or without subchondral irregularity/sclerosis. | Moderate to marked irregularity/subchondral defect with subchondral irregularity/sclerosis, with or without osteochondral fragmentation, or trochlear dysplasia. |
| OC of the metacarpal (metatarsal) condyle and dorsal osteochondral fragmentation of the proximal phalanx | Normal or focal flattening with normal subchondral bone of the proximal phalanx. | Small fragmentation of the proximal phalanx or slight flattening of the sagittal contour of the condyle. | Medium-sized fragmentation of the proximal phalanx without associated remodeling, or small concavity with or without a small fragment of the sagittal contour of the condyle. | Large fragmentation of the proximal phalanx with associated remodeling, or moderately to severely extensive concavity/fragmentation of the sagittal contour of the condyle, or fragmentation of the lateral or medial portion of the condyle. |
| Palmar (plantar) osteochondral fragmentation of the fetlock | Normal or focal irregularity of the subchondral bone. | Small fragmentation of the proximal phalanx with or without mild subchondral irregularity/sclerosis. | Medium to large fragmentation of the proximal phalanx with or without mild to moderate subchondral bone remodeling/sclerosis. | Large fragmentation with extensive subchondral bone remodeling/sclerosis and signs of arthropathy. |

II – Juvenile abnormalities such as juvenile arthropathy and cystic lesions.

| Severity | Normal | Mild | Moderate | Severe |
|--|------------------------------|---|--|--|
| Juvenile arthropathy of the distal tarsal joints | Normal. | Small smooth dorsal bony proliferation of the third metatarsal or slight remodeling of the articular margins. | Slight dorsal collapse with mild sclerosis, with or without subtle remodeling of the articular margins. No joint space narrowing or subchondral lysis. | Moderate to marked dorsal collapse with moderate to marked sclerosis. Moderate to marked remodeling of the articular margins, with or without joint space narrowing and subchondral lysis. |
| Cyst-like lesion of the tarsal bones | Normal. | Small. | Medium-sized, not clearly communicating with the joint space.. | Medium-sized communicating with the joint space, or large—communicating or not communicating with the joint space. |
| Cyst-like lesion of the femoral condyle | Normal or slight flattening. | Shallow concavity without peripheral sclerosis | Deeper concavity with peripheral sclerosis. | Cyst-like lesion with or without peripheral sclerosis |
| Cyst-like lesion of the phalanges | Normal. | Small. | Medium-sized, not clearly communicating with the joint space. | Medium-sized communicating with the joint space, or large (whether communicating with the joint space or not). |

III – Distal sesamoid bone

| Severity | Normal | Mild | Moderate | Severe |
|----------------------|------------------------------------|---|---|--|
| Distal sesamoid bone | Normal or a few small synovial pit | Concavity/truncated appearance without fragmentation of the distal border. Numerous small synovial pits or pits with peripheral sclerosis, or a few moderately enlarged axial synovial pits.. | Small fragment with or without slight remodeling/sclerosis of its bed. Synovial pits numerous and moderately enlarged | Larger fragment with or without remodeling/sclerosis of its bed, or small fragment with marked remodeling of its bed. Synovial pits severely enlarged or cystic in appearance. Erosion of the palmar cortex. |