

# Standard of Care for the Treatment of Non-Unions

**Author:**

J. Hungria Neto

**Institution:**

Faculdade de Ciencias Medicas da Santa Casa de Sao Paulo (Sao Paulo - Brasil)

Considering that non-union results from one or both factors (instability and impaired vascularization), the treatment is directed to overcome the causing factors. Many non-unions have been existing for long time, and some with previous surgeries. The consequences are that beside the lack of bone union, it may be present misalignment, skin scars, dead bone, loose implants and particularly important bone atrophy (disuse) and joint stiffness (or impaired ROM).

Treatment must consider all these parallel factors, which have to be overcome in order to bring back to the patients the best possible conditions to achieve better daily activities, and even going back to sports.

Diagnosis is usually easy to be established through plain X-Rays, moreover if they are consecutive. Seldom it is necessary to have CT scan or MRI. Assessment of function pre-op is mandatory. Treatment objectives are to correct not only non-union, but also to restore length, angulations and rotational deformities, and especially articular function. Today the best way to fulfill these requirements is with surgical treatments, which offer required stability so bone can heal, correct deformities, allow to add bone graft when necessary and permits early movements of joints.

All these factors together offer good results in over 80% in surgically treated non-unions with stable osteosynthesis.