

Informed Consent

Triple Pelvic Osteotomy (TPO)

Your dog has been diagnosed with hip dysplasia and one of the treatments in immature dogs is a surgery called triple pelvic osteotomy (TPO). The goal of this surgery is to make multiple cuts in the pelvis and rotate a segment of bone containing the acetabulum (cup part of the joint) so it houses the femoral head (ball part of the joint) better. Following rotation, a bone plate and screws, and usually an additional wire is used to secure the fragment in its new place. The ultimate goal is to prevent the arthritic changes associated with hip dysplasia as your pet ages. Generally, the prognosis is good to excellent with surgery. However, we need to make you aware of a few of the common complications that could arise after TPO surgery. If you have any questions or concerns, please let us know.

The risks of complications after TPO is low, about 10-15% of cases. Here are some potential risks:

Dysuria (difficulty urinating)- following the rotation of the pelvis segment, the urethra can get irritated and your pet may experience difficulty urinating. Usually, this issue is temporary and resolves on its own without therapy. This is one of the reasons we recommend on doing one side at a time. If you are concerned your pet cannot urinate at all, please contact a veterinarian immediately!

Screw loosening- if the patient is too active, the plate and screws may experience excess stress, seen as screw loosening or migration. Usually no action is required, but additional rest and recheck X-rays. It is possible additional surgical intervention may be recommended.

Failure to prevent arthritis/osteoarthritis (OA)/degenerative joint disease (DJD)- the goal of TPO is to prevent arthritis. Arthritis may still occur in some cases and this could be due to the patient not being the best candidate for surgery, but could also occur in some cases that seem like good cases as puppies. If arthritis develops following TPO, the hips may need to be managed medically, or surgically with a femoral head and neck ostectomy (FHO), or a total hip replacement (THR).

Rare complications:

Infection- this may require oral antibiotic therapy and in some cases may require removal of the TPO plate (which is safe to do without “undoing” surgery after the bone has healed, usually 3 months after surgery).

Nerve damage- multiple cuts are made in the pelvis and we must avoid the soft tissues, including nerves around the bones. It's possible for nerve damage could occur. The nerve damage could occur to the main nerve supply of the back leg, the sciatic nerve. In the worst case scenario, if permanent nerve damage occurs to the sciatic nerve, limb amputation would be necessary.

Hemorrhage (bleeding)-as above, blood vessels could be damaged just like nerves. In the worst case scenarios, bleeding can be potentially life-threatening

Pelvic canal narrowing- as described with dysuria above, severe cases may also result in constipation and if a female gets pregnant, she may have difficulty during delivery (dystocia)

Failure of fixation- if multiple screws loosen or break or the plate breaks or pulls from the bone, revision may be required.

Wire irritation- if a wire is used, it may irritate tissues and require removal

There are rare reports of plate-associated cancers