

Distal Femoral Osteotomy Plate

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The Distal Femoral Osteotomy/Ostectomy Plate (DFO) was developed to provide the surgeon with a plate designed specifically for correcting medical (or lateral) patellar luxations due to excessive distal femoral varus (or valgus), and for other corrective osteotomies/ostectomies or fractures of the distal femur in large breed dogs. Medial patellar luxations are commonly found in large breed dogs having distal femoral varus. Since large breed dogs have longer femora, the quadriceps mechanism applies a significant force to the patella. These forces lead to a recurrence of patellar luxations. The objective of the Distal Femoral Osteotomy/Ostectomy is to straighten both the femur and the quadriceps mechanism to enable the patella to track properly.



Fig. 1



Fig. 2



Fig. 3



Fig. 4 (Post-op)



Fig. 5 (Post-op)



Fig. 6 (3 months Post-op)

Pre-operative Planning: Figures 1 & 2 shows medial patellar luxation as a result of distal femoral varus. Pre-operatively the appropriate osteotomy angle necessary to straighten the femur is drawn on the x-ray as noted in Fig. 3. Post-operatively the femur has been straightened (Fig. 4 & 5) and the patella sits nicely within the trochlear groove (Fig. 6).



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Before



After



Design Features

- The DFO plate can address correction of distal femoral varus/valgus from both the medial and lateral sides.
- The osteotomy is performed just above the trochlea. The DFO plate has a 15mm space between the 2 compression/locking holes to accommodate an opening wedge osteotomy or a closing wedge osteotomy.
- When performing a medial opening wedge osteotomy for distal femoral varus, the DFO plate would be applied in a buttress fashion to the medial side and a bone graft placed in the opening wedge defect.
- When performing a lateral closing wedge osteotomy for distal femoral varus, the DFO plate is applied to the lateral side. This may have a biomechanical advantage due to shared loading of the bone/implant construct.
- The DFO plate is curved in the distal section to follow the natural curvature of the distal femur to minimize the potential of overhang.
- The DFO plate can be implanted using standard screws or locking screws. When using locking screws, the plate/screw construct can withstand more than twice the axial load as compared to a standard screw construct.*

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Distal Femoral Osteotomy Plates

Cat #	Description	Cat #	Description
DFO2.0L	DFO 2.0mm, Left	DFOM3.5L	DFO 3.5mm, Mini Left
DFO2.0R	DFO 2.0mm, Right	DFOM3.5R	DFO 3.5mm, Mini Right
DFO2.4L	DFO 2.4mm, Left	DFO3.5L	DFO 3.5mm, Left
DFO2.4R	DFO 2.4mm, Right	DFO3.5R	DFO 3.5mm, Right
DFO2.7L	DFO 2.7mm, Left	DFOB3.5L	DFO 3.5mm, Broad Left
DFO2.7R	DFO 2.7mm, Right	DFOB3.5R	DFO 3.5mm, Broad Right

*Axial compression load testing was performed at an independent testing laboratory. Technical report on file at NGD.



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