



Distal Tibia - AL Plate



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1 Introduction

Ydfix Distal Tibia AL plates, similarly to previous members of the Ydfix family, is capable of handling intraand periarticular fractures. The distal tibia fractures can be fixed with standardized, color coded 3.5 mm dia polyaxial screws even in case of the most difficult fracture patterns.

2.1 | Ydfix Distal Tibia plate - AL



2.3 | Cortical screw - TX Ø3.5 mm

Length (mm)

10 - 50

Anodised Titanium

grey

1.1 | The implant

• Polyaxial angle stabilized system in step - free ±15 deg angulation of insertion



1.2 | Instruments

- Capable of drilling in preset and ±15 deg directions step – free
- Instruments and implants in one tray
- Optimized instruments
- Color coded torque limiting screwdriver



Maximum 3 times of correction possibility when misidentifying the correct screw direction

- Optimal, pre-determined screw directions in the holes
- Thinned head, the implant does not interfere with the soft tissues
- Rounded edges to protect nearby soft tissues
- Ability to perform minimally invasive surgery
- Oval hole for plate positioning
- Self tapping but blunt ended screws to avoid tissue irritation
- Anodized Titanium raw material •
- Torx headed screws

1.3 Indication

- Extra- and intra-articular distal tibia fractures
- Distal tibia osteotomy
- Distal tibia non unions

in osteopenic bones.

Implant range 2

2.2 | Ydfix screw Ø3.5 mm

Length (mm)

10 - 50



Raw material

Anodised Titanium

Colour

green

3.1 | Patient positioning

In supine position of translucent table so that the image intensifier can make a-p and m-l images as well.

3.2 | Plate selection

During preoperative planning select the most appropriate size plate for the given fracture.

3.3 | Incision

Concerning the approach and the incision, the number of screws applied and the optimal steps of the surgery this present description does not make a stance. The above shall be acquired from surgical textbooks, videos and workshops.

3.4 | Modellation of the plate

For optimal fit we can modellate the plate- in case it is needed. Drive the bending tools fully in the respective holes and always use two neighbouring holes. Perform bending.

Use Plate bender-V for the holes of the tail and Plate bender for the holes of the head.



3.5 | Positioning the plate

Guide the plate to the bone surface and push it along in proximal direction. Check optimal position with image intensifier. The plate can be temporarily fixed with a Kirschner wire which must be removed prior to fine adjustment of the plate position.

Fix the plate with a grey cortical screw in the oval hole. For this use the straight side of the double drill sleeve and drill with the 2.8 mm drillbit.

Measure screw length.

YDT-AL system offers two measurement methods:

As per one, push the hook of the gauge through the hole. Push the moving part on the bone surface and select screw according to the read value. If the hole is a blind one (monocortical deduce one mm from the read value.

The other method uses a green drill stop placed on the drillbit before drilling above the spiral part. After drilling through the straight side of the 2.8 mm sleeve the necessary value can be read below the stop.









Fix the screw in such a way that plate positioning is still possible by slightly moving the plate. After reaching the final position fix the plate by tightening the cortical screw.



3.7 | Locking the head

There are two possibilities for locking the head: planned direction and selected direction technique.

3.7.1 | Planned direction locking the head

Put the straight side of the 2.8 mm drill sleeve into the hole and drill with the 2.8 mm drillbit. After drilling remove the sleeve.

3.6 | Temporary fixation

To ensure stabile bone-plate connection drill 2 mm Kirschner wires into the Kirschner wire holes.



Measure screw length as per the techniques described in 3.5.

Drive the 3.5 mm screw in with a T15 /1.5 Nm screwdriver. Using torque limiting screwdriver reduces excessive fixation of the screw and plate during healing.

Repeat the above steps to enter the necessary screws in the pre-determined anatomically optimal directions.



3.7.2 | Selected direction locking the head

This technique enables the surgeon to have a \pm 15 degree deviation form the anatomically optimal, predetermined direction.

Use the conical side of the 2.8 mm double drill sleeve and the 2.8 mm drillbit. The tip of the sleeve fits into the hole and the axis of the conical sleeve is in the optimal direction. This ensures the \pm 15 degree deviation from the optimal direction.

Drill with the 2.8 mm drillbit in the appropriate direction.

Use depth gauge without the sleeve as per the image.

Attention

When drilling through the conical side of the double drill sleeve the drillbit cannot function as a length gauge.

After gauging drive the screw in with a T15 /1.5 $\ensuremath{\mathsf{Nm}}$ screwdriver.







3.8 | Locking the tail

On the tail traditional monoaxial locking is suggested.

3.8.1 | Monoaxial locking

Put the straight side of the double drill sleeve into the hole of the plate and drill with 2.8 mm drillbit.

Remove the 2.8 mm sleeve and the drillbit and measure screw length as per described in 3.5.



Drive the screw in with T15/1.5 Nm screwdriver. Repeat the above steps in all necessary holes.



3.9 | Compression locking

For implanting compression screws drill through the compression side of the double drill sleeve V with the 2,8 mm drillbit. Length gauging is followed by screw insertion with the T15 screwdriver.

For the optimal compression use TX cortical screws.



3.10 | Closing

Close the wound according to the general rules.

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4 | Implant list

4.1 | YDFIX Distal Tibia plate - AL

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Side	Holes	Length (mm)	Anodised Titanium
Left	4	83	3029402004
Left	6	94	3029402006
Left	8	116	3029402008
Left	10	138	3029402010
Right	4	83	3029401004
Right	6	94	3029401006
Right	8	116	3029401008
Right	10	138	3029401010

4.2 | YDFIX screw Ø3.5 mm

L	ength (mm)	Anodised Titanium
	10	1017435010
	12	1017435012
	14	1017435014
	16	1017435016
	18	1017435018
	20	1017435020
	22	1017435022
	24	1017435024
	26	1017435026
	28	1017435028
	30	1017435030
	32	1017435032
	34	1017435034
	36	1017435036
	38	1017435038
	40	1017435040
	42	1017435042
	44	1017435044
	46	1017435046
	48	1017435048
	50	1017435050

4.3 | Cortical screw - TX Ø3.5 mm

Length (mm)	Anodised Titanium
10	1032435010
12	1032435012
14	1032435014
16	1032435016
18	1032435018
20	1032435020
22	1032435022
24	1032435024
26	1032435026
28	1032435028
30	1032435030
32	1032435032
34	1032435034
36	1032435036
38	1032435038
40	1032435040
42	1032435042
44	1032435044
46	1032435046
48	1032435048
50	1032435050

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5 | Instrument list

5.1 Instruments			5.1 Instruments	
Screwdriver (T15)	1 pc	5210720015	Double drill sleeve - V (Small)	1 pc
Torque limiting screwdriver (T15/1.5 Nm)	1 pc	5210510044	Spiral drill with quick coupling end (2.8x190mm)	2 pcs
Plate bender (6 mm)	2 pcs	5280122907	Kirschner wire (2x210 mm)	6 pcs
Plate bender - V (6 mm)	2 pcs	5280122914	Screw forceps	1 pc
Double drill sleeve - PAS (2.8 mm)	1 pc	DIA 2.8 5280122903	Drill stop (2.8 mm)	2 pcs
Depth gauge	1 pc	5280114905	Torque screwdriver (optional)	





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