



Acutrak 2® Headless Compression Screw System

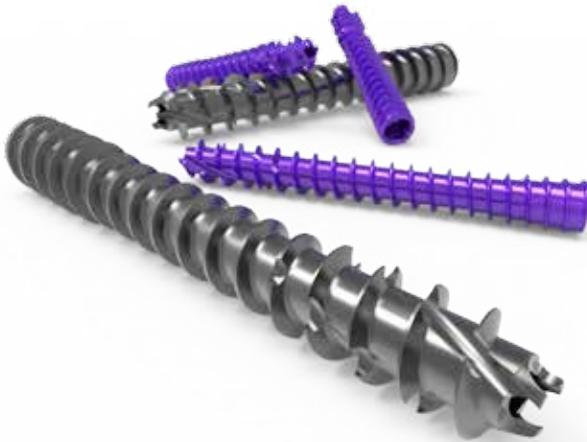
4.7 mm and 7.5 mm Screws

Supplemental Use Guide—Standard Triple Arthrodesis



Acumed® is a global leader of innovative orthopaedic and medical solutions.

We are dedicated to developing products, service methods, and approaches that improve patient care.



Acumed® Acutrak 2® Headless Compression Screw System—4.7 mm and 7.5 mm

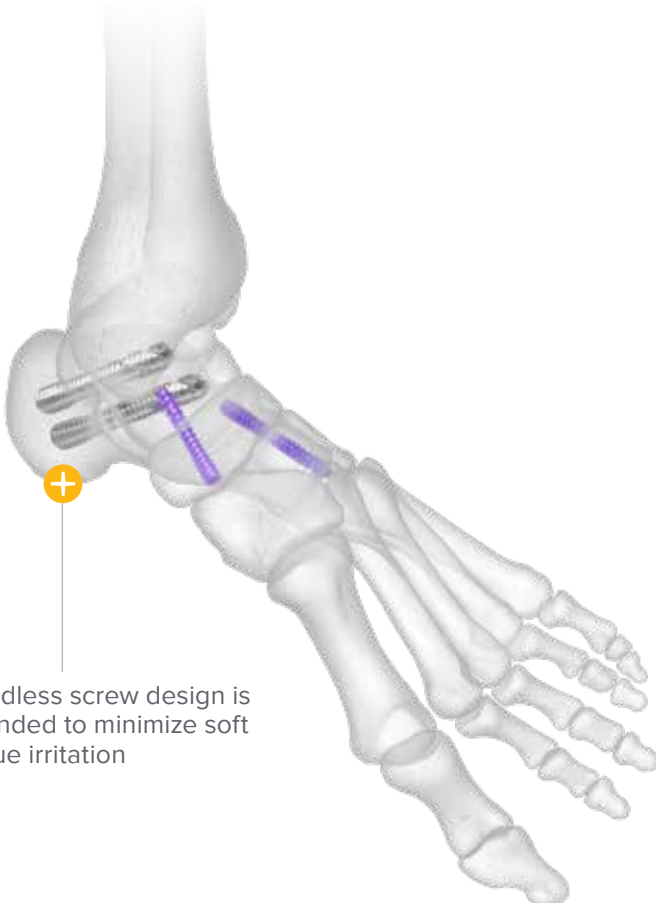
This guide is intended for supplemental use only and is not intended to be used as a stand-alone surgical technique. Reference the Acumed Acutrak 2 Headless Compression Screw System Surgical Technique (SPF00-02) for more information.

	Definition
Warning	Indicates critical information about a potential serious outcome to the patient or the user.
Caution	Indicates instructions that must be followed in order to ensure the proper use of the device.
Note	Indicates information requiring special attention.

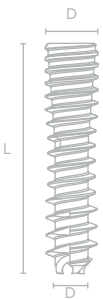
Table of Contents

System Features	2
Standard Triple Arthrodesis Surgical Technique: Acutrak 2—4.7 and 7.5	4
Ordering Information	15

System Features



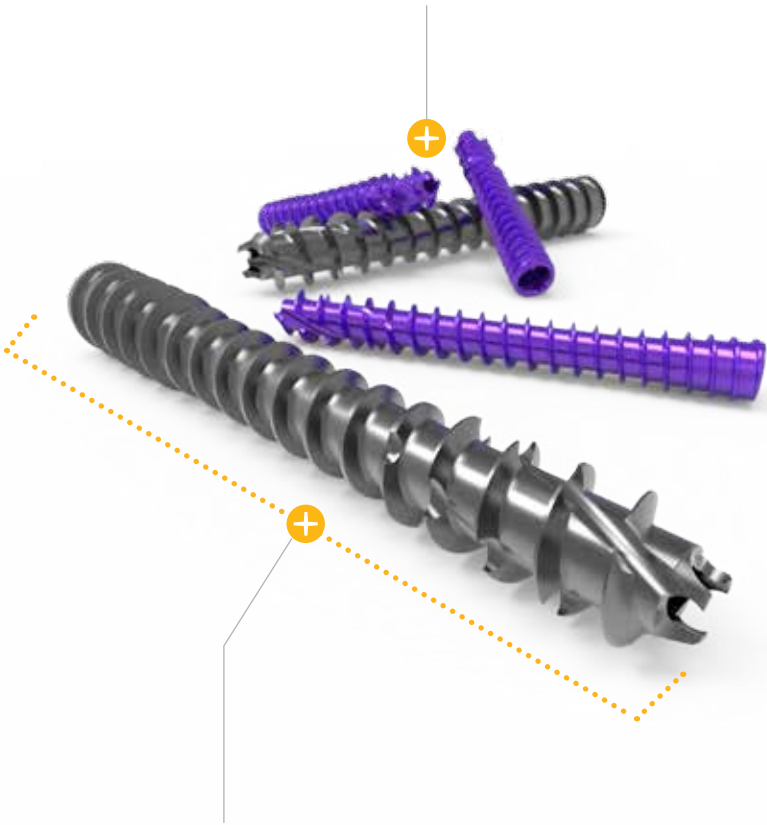
Headless screw design is intended to minimize soft tissue irritation



Acutrak 2 Screws	Diameter	Length
4.7 mm	Tip: 4.5 mm	2 mm increments 20–30 mm
	Tail: 4.7 mm	5 mm increments 30–50 mm
7.5 mm	Tip: 7.0 mm	5 mm increments 40–120 mm
	Tail: 7.5 mm	

System Features

Self-cutting and self-tapping screw is designed to facilitate insertion into hard bone



Fully threaded, continuously variable thread pitch allows each thread along the entire length of the screw to aid in the reduction and compression of the fracture

Standard Triple Arthrodesis

Surgical Technique:

Acutrak 2®—4.7 and 7.5

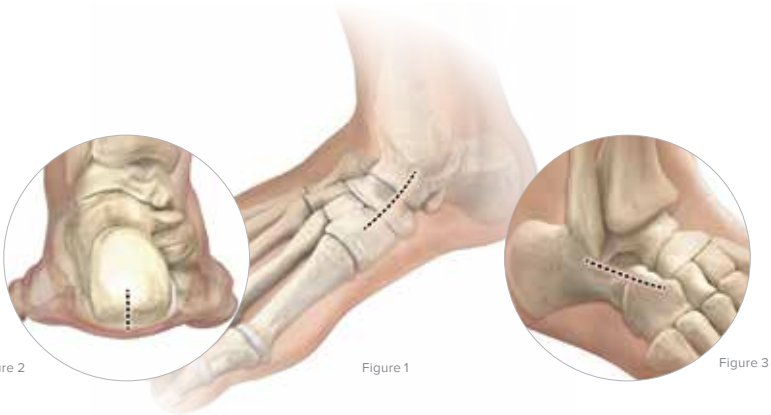


Figure 2

Figure 1

Figure 3

1 Incisions

Classically, the procedure is performed via one lateral and one medial incision. The lateral incision begins at the tip of the fibula and extends toward the cuboid-fourth metatarsal joint. The medial incision begins at the tip of the medial malleolus.

Standard Triple Arthrodesis

Surgical Technique:

Acutrak 2®—4.7 and 7.5

2 Lateral Exposure

Use a periosteal elevator to expose the surfaces of the calcaneus, cuboid, and talus. Prepare the calcaneocuboid and subtalar joints by removing any remaining cartilage and subchondral bone down to cancellous bone, leaving the overall contours of the bones intact. Once all cartilage is removed use a sharp osteotome to “fish-scale” the joints. Use a 2 mm drill bit to make multiple perforations in the subchondral bone to enhance fusion.

3 Subtalar Joint Reduction and Stabilization

Reduce the hindfoot deformity by rotating the calcaneus and the talus with a goal of 5 degrees of the valgus. The slight valgus can also be adjusted by removing extra bone from the medial or lateral side of the calcaneus when prepping the joint. Place two guide wires from the calcaneus into the talus, or vice-versa, or one in each direction. Avoid the weightbearing heel pad.

Standard Triple Arthrodesis

Surgical Technique:

Acutrak 2®—4.7 and 7.5

Figure 4



4 Fusion Reduction

If the fusion site is unstable, it may be helpful to place a second parallel guide wire using the parallel wire guides that are available for all three Acutrak 2 screw families. The order of joint fusion is often surgeon-dependent. Here, the order will be: 1) ST, 2) TN, and 3) CC joint. Bone graft is typically packed between the prepared spaces. Reduce the hindfoot by rotating the calcaneus and the talus with a goal of 5 degrees of valgus. Place two guide wires from the calcaneus into the talus, or vice-versa, or one in each direction. Avoid the weight-bearing heel pad.

Standard Triple Arthrodesis

Surgical Technique:

Acutrak 2®—4.7 and 7.5



Figure 5

5 Determine Screw Length

Measure the guide wire length either by using the percutaneous screw sizer or by placing a second wire at the entry point and subtracting the difference in length. Subtract 4 mm from the measured length to ensure that both ends of the screw are buried within the bone.

6 Advance Guide Wire

Advance the guide wire through the far cortex with the long drill, so that it lies in the subcutaneous tissues. This decreases the risk of accidental withdrawal of the guide wire while drilling and facilitates wire removal if it breaks.

Standard Triple Arthrodesis

Surgical Technique:

Acutrak 2®—4.7 and 7.5

Figure 6



7 Drill Far Fragment

Drill into the far fragment with the long drill. Typically, the drill must only advance 4–5 mm past the fusion site to be effective.

Caution: The long drill is recommended to mitigate the effects of varying bone density and distraction upon screw insertion.

Standard Triple Arthrodesis

Surgical Technique:

Acutrak 2®—4.7 and 7.5



Figure 7

8

Drill the Near Cortex

Open the near cortex with the appropriate profile drill.

Standard Triple Arthrodesis

Surgical Technique:

Acutrak 2®—4.7 and 7.5

Figure 8



9 Screw Insertion

Insert the correct size screw with the appropriate hex driver. If resistance is met upon insertion or if distraction occurs: Stop, remove the screw, re-drill with the long drill, and re-insert the screw. Confirm the placement and length of the screw under fluoroscopy, ensuring that both the leading and the trailing threads of the screw are within the bone. Remove the guide wires.

Standard Triple Arthrodesis Surgical Technique: Acutrak 2®—4.7 and 7.5

Figure 9



Figure 10

10 Talonavicular Fusion

Reduce the talonavicular (TN) joint through pronation, adduction, and plantarflexion of the forefoot while pressure is applied from the plantar medial aspect of the talar neck to hold it in reduced position. Insert the guide wire to fixate and hold the TN joint in approximately 5 degrees of valgus. Insert the screw in a manner similar to that described in steps 5–9.

Standard Triple Arthrodesis

Surgical Technique:

Acutrak 2®—4.7 and 7.5

Figure 11

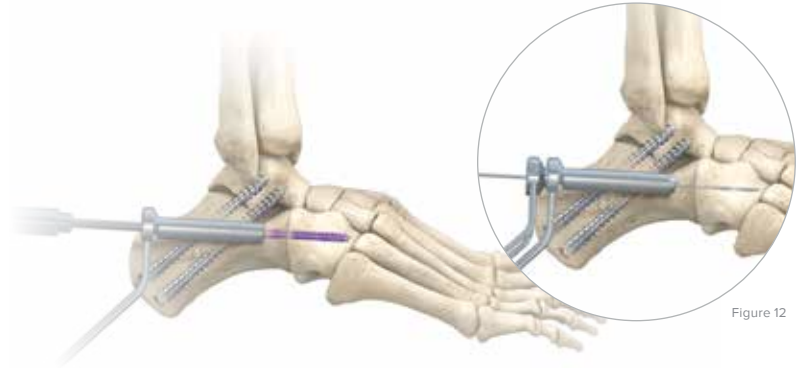


Figure 12

11 Calcaneocuboid Fusion

Reduce the calcaneocuboid (CC) joint in a similar fashion to the TN joint reduction. Insert the guide wire to fixate and hold the CC joint in approximately 5 degrees of valgus. Insert the screw in a manner similar to that described in steps 5–9.

Ordering Information

Acutrak 2®—4.7

Implants

20 mm Acutrak 2—4.7 Screw	30-0620
22 mm Acutrak 2—4.7 Screw	30-0622
24 mm Acutrak 2—4.7 Screw	30-0624
26 mm Acutrak 2—4.7 Screw	30-0626
28 mm Acutrak 2—4.7 Screw	30-0628
30 mm Acutrak 2—4.7 Screw	30-0630
35 mm Acutrak 2—4.7 Screw	30-0635
40 mm Acutrak 2—4.7 Screw	30-0640
45 mm Acutrak 2—4.7 Screw	30-0645
50 mm Acutrak 2—4.7 Screw	30-0650

Instrumentation

Acutrak 2—4.7 Profile Drill	80-0945
Acutrak 2—4.7 Long Drill	80-0946

Ordering Information

Acutrak 2®—5.5

Implants

25 mm Acutrak 2—5.5 Screw	30-0021
30 mm Acutrak 2—5.5 Screw	30-0023
35 mm Acutrak 2—5.5 Screw	30-0025
40 mm Acutrak 2—5.5 Screw	30-0027
45 mm Acutrak 2—5.5 Screw	30-0029
50 mm Acutrak 2—5.5 Screw	30-0031
55 mm Acutrak 2—5.5 Screw	30-0084
60 mm Acutrak 2—5.5 Screw	30-0085

Instrumentation

Acutrak 2—5.5 Profile Drill Large AT2	80-0955
Acutrak 2—5.5 Long Drill Large AT2	80-0956

Additional Instrumentation

4.7 and 5.5 Instrumentation

1.6 mm Guide Wire Probe	80-0992
1.6 mm (.062") x 9.25" Guide Wire	80-0950
3.0 mm Cannulated QR Hex Driver Tip AT2	80-0958
3.0 mm Solid QR Hex Driver Tip AT2	80-0959

Ordering Information

Additional Instrumentation

4.7, 5.5 and 7.5 Instrumentation

Large Acutrak 2 Drills and Driver Platter	80-0870
Large Acutrak 2 Common Instrument Platter	80-0871
Small Ratchet Handle with QR Connection	80-0398
Forceps	AT-7005
Sharp Hook	PL-CL06
3.0 mm Easyout, Quick Release	80-0601
Large Acutrak 2 4.7 and 5.5 Screw Platter	80-0876
Large Acutrak 2 4.7 Screw Caddy	80-0878
Large Acutrak 2 5.5 Screw Caddy	80-0880
Large Acutrak 2 Screw 2 x 2 Base	80-0884
Large Acutrak 2 Screw Lid	80-0885
Large Acutrak 2 Screw System Lid	80-0869

Note: All screws are also available sterile-packed. Add an -S to end of product number for sterile product.

To learn more about the full line of Acumed innovative surgical solutions, please contact your local authorized Acumed distributor, call 888.627.9957, or visit www.acumed.net.



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