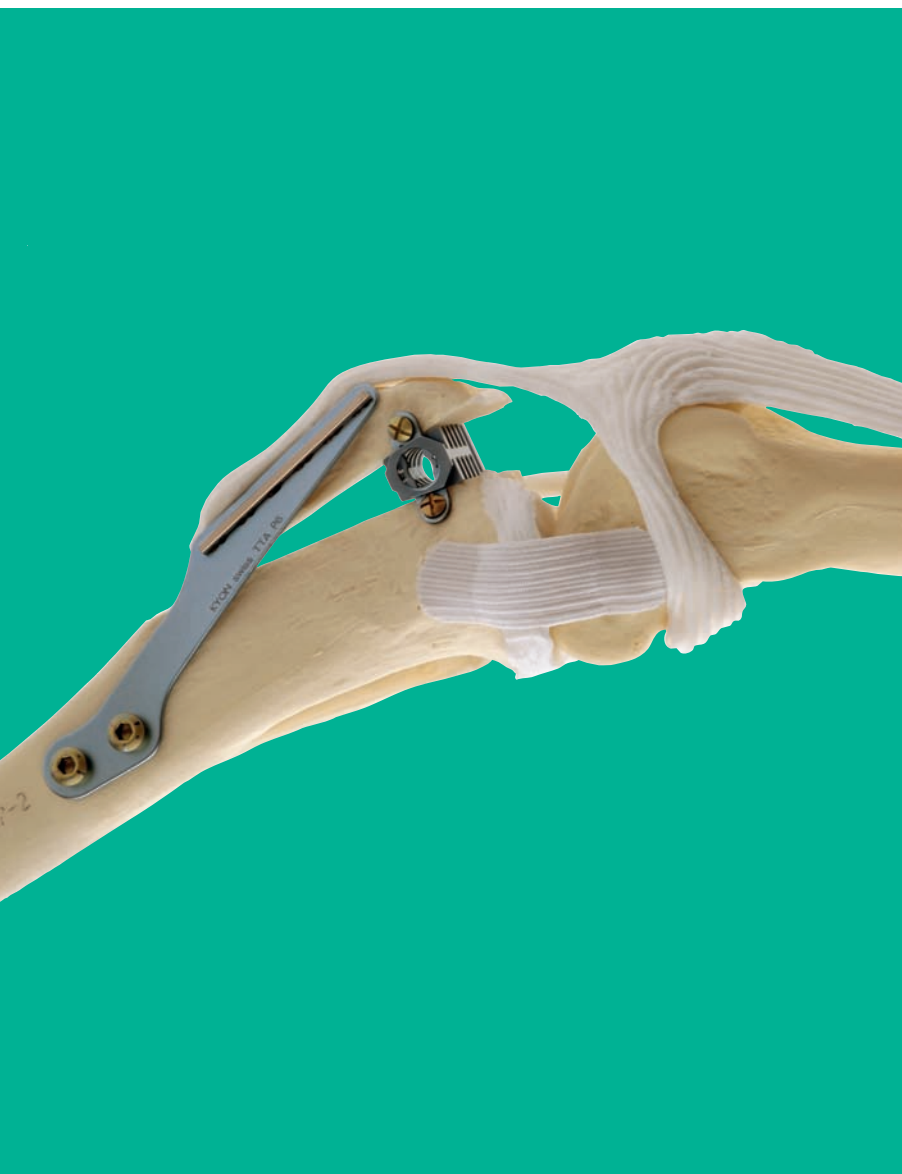


TIBIAL TUBEROSITY ADVANCEMENT

7 YEARS OF CLINICAL EXPERIENCE WITH OVER 40'000 CASES



Biologic Benefits

- TTA neutralizes cranial tibial thrust in cranial cruciate ligament deficient stifles
- Stability is achieved without compromising joint congruency
- TTA decreases internal joint reactions including retropatellar pressure
- TTA is less invasive than other geometry modifying techniques
- TTA reduces morbidity and post-surgical complications while accelerating recovery

Technical Features

- Sound biomechanical rationale
- Simplified surgical procedure
- Unique implants designed specifically for TTA
- Superb biocompatibility of titanium
- Simple instrumentation
- Broad range of sizes available

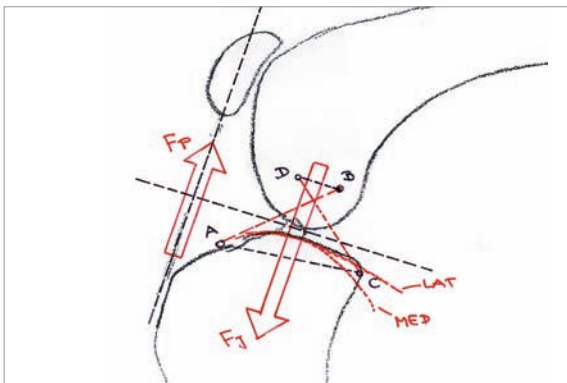
Educational Opportunities

- **KYON** sponsors instructional courses to facilitate the introduction of the TTA technique into clinical practice
- Educational materials are available through either **KYON** (www.kyon.ch) or the University of Zurich Veterinary School (contact Christiane de Robillard, secretary of the small animal clinic, email: cderobillard@vetclinics.uzh.ch)
- The training course schedule is available on the **KYON** website (www.kyon.ch)

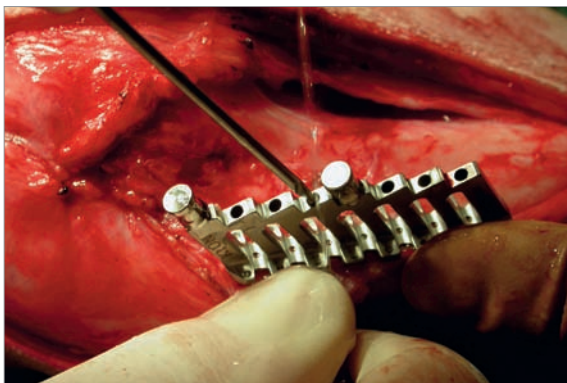
Tibial Tuberosity Advancement for cranial cruciate deficiency

THE **TTA** RESTORES STABILITY IN STIFLES WITH RUPTURED CRANIAL CRUCIATE LIGAMENTS USING A RATIONALLY BASED SURGICAL INTERVENTION REDUCING MORBIDITY IN COMPARISON TO OTHER GEOMETRY CHANGING APPROACHES

- Stability of the stifle is restored by adjusting the joint force vector to make it perpendicular to the condyles of the tibia with the stifle extended
- **TTA** achieves stability without effecting congruency of the joint and allows for an unimpeded full range of motion
- **TTA** does not disrupt the primary loading axis of the tibia
- **TTA** increases the lever arm of the quadriceps force thus reducing all internal joint reactions



Biomechanical rationale for TTA – joint force is nearly parallel to the patellar ligament



Using the drill guide to drill holes along the cranial border of the tibial tuberosity



8 week post-operative radiograph

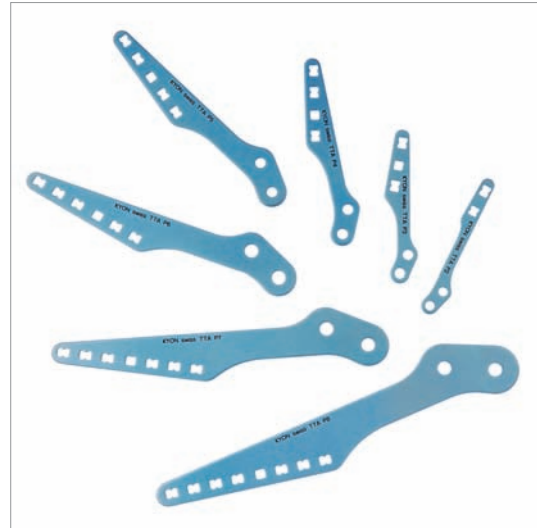
The TTA procedure was invented, developed and brought to clinical use by KYON. All implants and instruments are made in Switzerland to the highest manufacturing standards with the best materials.

Ref.No.	KYON TTA-implants; Description
	cages
3.10.01	TTA cage 3/13mm, c.p. titanium
3.10.02	TTA cage 3/16mm, c.p. titanium
3.10.03	TTA cage 3/19mm, c.p. titanium
3.10.11	TTA cage 6/16mm, c.p. titanium
3.10.12	TTA cage 6/19mm, c.p. titanium
3.10.13	TTA cage 6/22mm, c.p. titanium
3.10.21	TTA cage 9/19mm, c.p. titanium
3.10.22	TTA cage 9/22mm, c.p. titanium
3.10.23	TTA cage 9/25mm, c.p. titanium
3.10.31	TTA cage 12/22mm, c.p. titanium
3.10.32	TTA cage 12/25mm, c.p. titanium
3.10.33	TTA cage 12/28mm, c.p. titanium
	plates
3.20.02	TTA plate, 2-hole, c.p. titanium, cat
3.20.03	TTA plate, 3-hole, c.p. titanium
3.20.04	TTA plate, 4-hole, c.p. titanium
3.20.05	TTA plate, 5-hole, c.p. titanium
3.20.06	TTA plate, 6-hole, c.p. titanium
3.20.07	TTA plate, 7-hole, c.p. titanium
3.20.08	TTA plate, 8-hole, c.p. titanium
	forks
3.30.02	TTA fork, 2-prong, c.p. titanium
3.30.03	TTA fork, 3-prong, c.p. titanium
3.30.04	TTA fork, 4-prong, c.p. titanium
3.30.05	TTA fork, 5-prong, c.p. titanium
3.30.06	TTA fork, 6-prong, c.p. titanium
3.30.07	TTA fork, 7-prong, c.p. titanium
3.30.08	TTA fork, 8-prong, c.p. titanium
	2.4 screws
3.40.10	2.4mm cortical screw, self-tapping, c.p. titanium, L 10mm
3.40.12	2.4mm cortical screw, self-tapping, c.p. titanium, L 12mm
3.40.14	2.4mm cortical screw, self-tapping, c.p. titanium, L 14mm
3.40.16	2.4mm cortical screw, self-tapping, c.p. titanium, L 16mm
3.40.18	2.4mm cortical screw, self-tapping, c.p. titanium, L 18mm
3.40.20	2.4mm cortical screw, self-tapping, c.p. titanium, L 20mm
3.40.22	2.4mm cortical screw, self-tapping, c.p. titanium, L 22mm
3.40.24	2.4mm cortical screw, self-tapping, c.p. titanium, L 24mm
3.40.26	2.4mm cortical screw, self-tapping, c.p. titanium, L 26mm
3.40.28	2.4mm cortical screw, self-tapping, c.p. titanium, L 28mm
3.40.30	2.4mm cortical screw, self-tapping, c.p. titanium, L 30mm
3.40.32	2.4mm cortical screw, self-tapping, c.p. titanium, L 32mm
3.40.34	2.4mm cortical screw, self-tapping, c.p. titanium, L 34mm
3.40.36	2.4mm cortical screw, self-tapping, c.p. titanium, L 36mm
3.40.38	2.4mm cortical screw, self-tapping, c.p. titanium, L 38mm
3.40.40	2.4mm cortical screw, self-tapping, c.p. titanium, L 40mm
	2.7 screws
3.50.14	2.7mm cortical screw, self-tapping, c.p. titanium, L 14mm
3.50.16	2.7mm cortical screw, self-tapping, c.p. titanium, L 16mm
3.50.18	2.7mm cortical screw, self-tapping, c.p. titanium, L 18mm
3.50.20	2.7mm cortical screw, self-tapping, c.p. titanium, L 20mm
3.50.22	2.7mm cortical screw, self-tapping, c.p. titanium, L 22mm
3.50.24	2.7mm cortical screw, self-tapping, c.p. titanium, L 24mm
3.50.26	2.7mm cortical screw, self-tapping, c.p. titanium, L 26mm
	3.5 screws
3.60.16	3.5mm cortical screw, self-tapping, c.p. titanium, L 16mm
3.60.18	3.5mm cortical screw, self-tapping, c.p. titanium, L 18mm
3.60.20	3.5mm cortical screw, self-tapping, c.p. titanium, L 20mm
3.60.22	3.5mm cortical screw, self-tapping, c.p. titanium, L 22mm
3.60.24	3.5mm cortical screw, self-tapping, c.p. titanium, L 24mm
3.60.26	3.5mm cortical screw, self-tapping, c.p. titanium, L 26mm
3.60.28	3.5mm cortical screw, self-tapping, c.p. titanium, L 28mm
3.60.30	3.5mm cortical screw, self-tapping, c.p. titanium, L 30mm

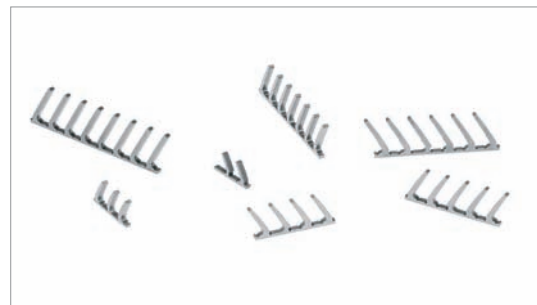
cages



plates



forks



complete set



Ref.No.	KYON TTA-instruments; Description
4.10.01	Drill guide for the forks, 8 holes
4.10.02	Fork inserter
4.10.03	Plate bender
4.10.04	T-handle, w spreaders 6, 9 and 12mm / plate bender
4.10.05	1.9mm pins (set of two)
4.20.01	Drill sleeve 2.7/2.0
4.20.02	Drill sleeve 3.5/2.5
4.20.03	Drill 2.0mm, L 102/75
4.20.04	Drill 2.5mm, L 145/120
4.20.05	Depth gauge
4.20.06	Screwdriver handle with fast coupling
4.20.07	Screwdriver insert, 2.5mm hex (for 2.7 and 3.5mm screws)
4.20.08	Screwdriver insert, cross-head (for 2.4mm screws)
4.20.09	Screwdriver, small, 2.5mm hex
4.20.10	Screw holding sleeve for 4.20.09
4.20.11	Drill 1.8mm, L 100mm
4.30.01	Hammer, 100g
4.30.02	Reduction forceps, L 126mm
4.30.03	Reduction forceps, L 161mm
4.30.04	Reduction forceps, L 222mm
4.40.01	Instrument case, alu, w cover/filter, also good for implant tray
4.40.02	Implant tray, aluminum, with inserts
4.40.03	Permanent filter for 4.40.01
4.40.04	Silicone pad insert for 4.40.01



KYON Veterinary Surgical Products

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