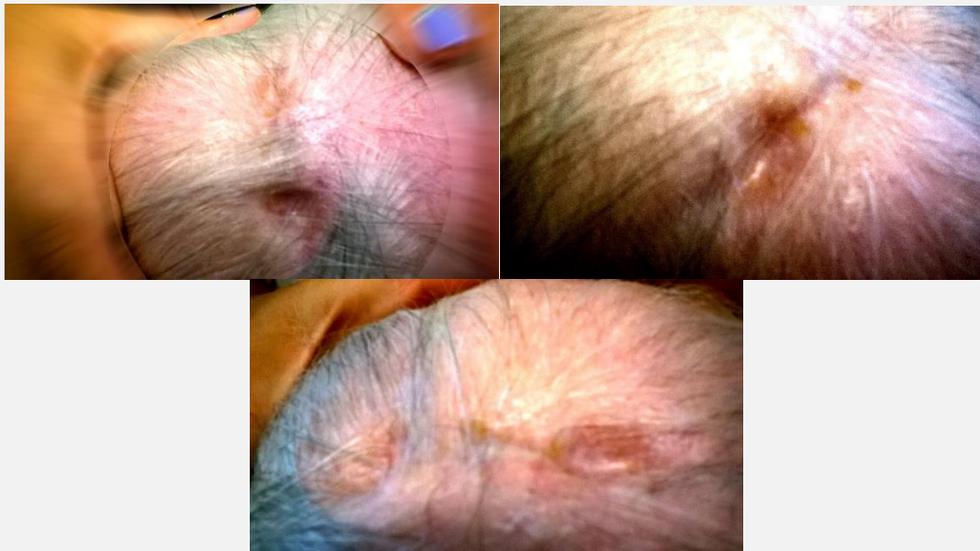
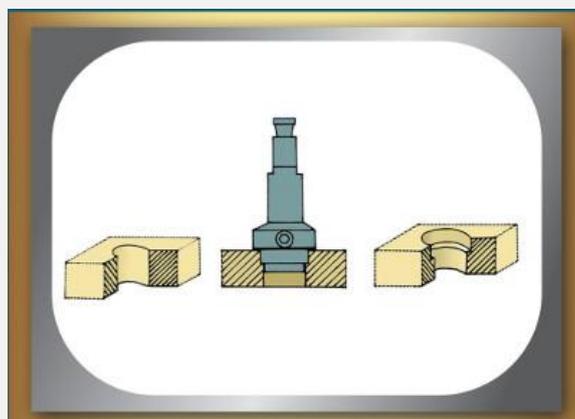

1] WHY WE DEVELOPED “TALOS SYSTEM”

Absorption of bone flaps after cranioplasty which followed craniotomy or craniectomy has been reported in the literature, especially in cases of large flaps, bilateral flaps, or in cases with significant time interval between removal and replacement of the bone. It appears that the use of bone graft, especially of a human one, within the margins of the incision, inhibits absorption phenomena to a great extent.

The “**Talos system**” outranks the use of bone graft fragments because it offers firm insertion of a single graft, at the point of the greatest bone deficit, which does not diffuse to the surrounding tissue and does not cause ectopic osteogenesis, while offering great cosmetic results.



2] WHAT IS “TALOS SYSTEM” ?



“**Talos system**” is an innovative system for closure and full reconstruction of trepanning

defects.

“**Talos system**” is protected by International Innovation Patent.

3] WHAT “TALOS SYSTEM” IS NOT

“**Talos system**” is not a method for trepanning or a method for craniotomy closure, and it is not a new method for fastening bone flaps. The fixing of the bone flap can be done with any method chosen by the surgeon, regardless of the system's use.

4] USES

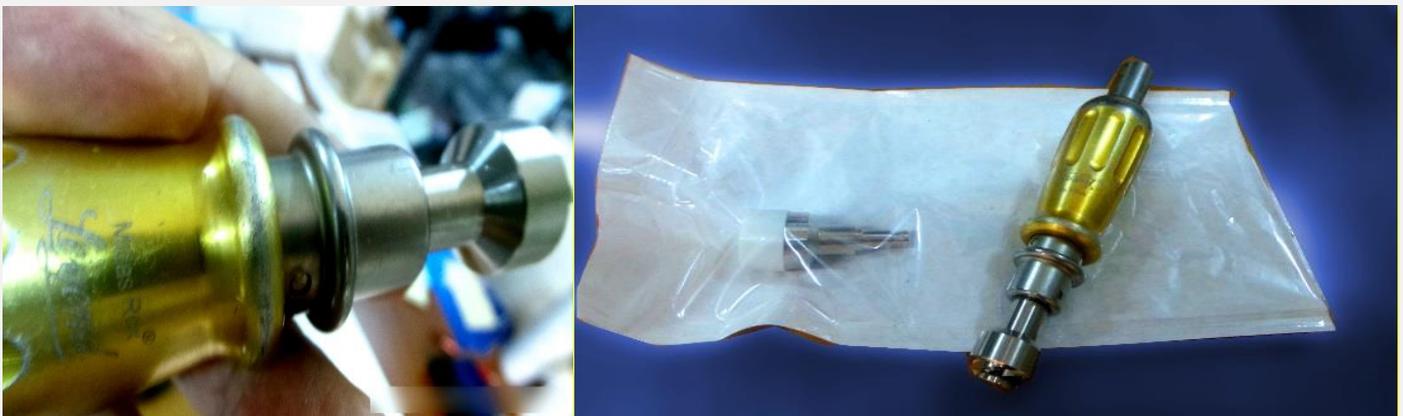
“**Talos system**” is applicable in all trepanning methods, individual (eg endoscopy, stereotaxy, minimal invasive surgery) and in any type of craniotomy.

5] WHAT “TALOS SYSTEM” IS APARTED OF

“**Talos System**” is aparted of a special configuration milling head and of one or more bone graft disks, human or synthetic.

6] COMPATIBILITY OF “TALOS SYSTEM” WITH CRANIOTOMY TOOLS.

“**Talos system**” milling head mounts on the trepanning accessory of any craniotomy drilling tool.





7] WHAT “TALOS SYSTEM” DOES

“**Talos System**” can adjust a trepanning hole to fit accurately and safely the disc implant. The specially designed milling head creates a safe context in which fits the shaped bone graft (human or synthetic), so to provide both filling of the trepanning holes as well as a second firm ossification matrix.



8] “TALOS SYSTEM” TECHNICAL DESIGN

The mill consists of a main body which is connected to the corresponding socket of the craniotomy accessory, a saw-like peripheral part of 3 mm depth and of a flat metal disc of 12 mm diameter.

9] HOW “TALOS SYSTEM” WORKS

The main body has the precise adjustment jack for the craniotomy accessory. The saw-like peripheral part of 3mm depth, forms the cutting part of the mill which is responsible for the final shaping of the trepanning hole, while the 12mm diameter metal disk is designed to protect the dura and any underlying structures from any possible contact with the cutting part, so to avoid any possible injury.

Additionally is mentioned that besides of the metal disc, the base of the cutting part itself operates as a boundary for the incision thereby preventing any further expansion of the incision more than 3 mm in depth.

The saw-like part is designed in such a way that any bone trimmings that are made up during the procedure, are forced towards the peripheral parts preventing them to enter the skull.

10] WHAT IS ACHIEVED WITH “TALOS SYSTEM” USE

What is finally achieved using the “Talos system” mill, is that the width of the trepanning hole is reshaped from 1,2 to 1,4 cm to 1,8cm so that the disc implant can be placed with accuracy. Through this process, full elimination of any disfigurements caused by the inaccurate bone flap's replacement or by bone loss during the craniotomy, is accomplished.

11] IN WHICH CASES WE USE “TALOS SYSTEM”

“Talos system”, is used during the operation in all kinds of trepanning, immediately after the fixation of the bone flap.

The mounting method of the cranial flap is a decision made by the surgeon, provided that a specific way of fixation is not required in order to use the system. The only requirement is that the fixation to be stable.

12] “TALOS SYSTEM” SURGICAL APPLIANCE TIME

Only a small portion of time is required to apply the system, so the whole operational time is not prolonged.

13] REQUIRED SURGICAL EXPERIENCE

The use of the system is possible by any surgeon with a minimum experience in craniotomy tools, while the minimum time for placing the bone, with the maximum safety, is achieved after a few applications.

14] WHY “TALOS SYSTEM” AND NOT SOMETHING ELSE

The special advantages that “Talos System” offers are:

- 1.** Complete reconstruction of the trepanning holes which are responsible for the biggest gaps on the skull surface.
- 2.** Reconstruction is performed by fixing the graft into the specially shaped hole, so that any shifting is impossible.
- 3.** The use of synthetic human bone graft that is fixed into the trepanning hole, creates focal points for ossification, which results in more rapid and effective integration of the bone flap.
- 4.** The use of the system is independent from the way of the craniotomy closure method that will be selected.

The time that the use of our system adds on the whole operational time depends on the number of the trepanning holes. In any case this time would be the most minimum, and does not exceed a 5 minutes period, given that a basic familiarization with the method has been achieved.

The only cost to be extra charged is that of the system.

15] WHERE IS “TALOS SYSTEM” PRODUCED

The “**Talos system**” has been designed, manufactured, packaged and sterilized entirely in Greece under certified procedures, fully compatible with both the Greek and the international law.

16] CERTIFICATIONS OF “TALOS SYSTEM”

The system is already available on the Greek market and is bought and used by a significant number of neurosurgery departments in several Greek hospitals.

17] POSSIBLE COMPLICATIONS

From the thus far use of the “**Talos System**” there has been no dysfunction, and no issues regarding the patients' safety or postoperative complications have been reported.

18] CLINICAL EVALUATION

The up to date experience with the “**Talos system**” use has shown that the system is effective, very easy to apply, has excellent cosmetic results, it is safe, while postoperative follow up of the patients has revealed that the graft's integration is complete within a period few months.
