

# PALTOP Osteotomekit

It is well established that good primary implant stability is critical for predictable osseointegration<sup>1</sup>.

This stability depends upon different factors, including implant design, surgical protocol, and above all, bone quantity and quality.

There are some clinical situations in which the bone quality is so poor that good implant stability is difficult to obtain.



cat# 60-70080



The threaded design of the PALTOP osteotome creates bone compression and allows atraumatic osteotome preparation.

The conventional osteotome technique of using a mallet to tap the osteotome has been associated with benign paroxysmal positional vertigo (BPPV)<sup>2</sup>.



The PALTOP osteotome kit allows for improved stability in poor quality bone. The kit includes four osteotomes for all PALTOP implants sizes. The screw-type osteotome is used for such purposes as bone compression and bone expansion.



Due to the many anatomical considerations and different types of bone, to ensure stability of the implant, it is important to match the size of the osteotome to the implant diameter.

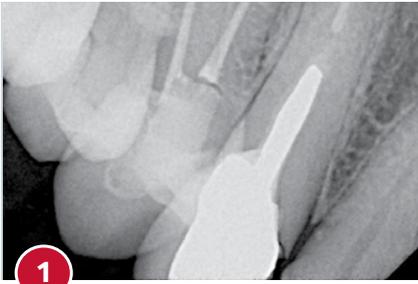
The PALTOP osteotome kit is designed for all PALTOP implant body diameters. The osteotome design creates bone compression with precise osteotomy preparation. Easy insertion and predictable initial stability are the result of the PALTOP osteotome design.

- A** osteotome for 3.25 implant - Cat. # 60-70081
- B** osteotome for 3.75 implant - Cat. # 60-70082
- C** osteotome for 4.2 implant - Cat. # 60-70083
- D** osteotome for 5.0 implant - Cat. # 60-70084

1. Fawad Javed, Hameeda Bashir Ahmed, Roberto Crespi, and Georgios E. Romanos; Role of primary stability for successful osseointegration of dental implants: Factors of influence and evaluation; Interv Med Appl Sci. 2013 Dec; 5(4): 162-167. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3873594/>  
 2. Sammartino G1, Mariniello M, Scaravilli MS; Benign paroxysmal positional vertigo following closed sinus floor elevation procedure: mallet osteotomes vs. screwable osteotomes. A triple blind randomized controlled trial; Clin Oral Implants Res. 2011 Jun;22(6):669-72; <http://www.ncbi.nlm.nih.gov/pubmed/21054553>



# Immediate implantation and loading with PALTOP® Osteotomes for bone expansion



**1** This 55 year old female patient presents with a failing maxillary cuspid.



**2** A fistula can be seen coming from the point of horizontal fracture in the tooth.



**3** The Benex tool atraumatically removes the cuspid.



**4** The Benex extraction tool is used to atraumatically remove the cuspid root and preserve the buccal plate.



**5** Handpiece driven osteotomes correspond to and replace twist drills, these osteotomes are designed for bone expansion and compaction.



**6** The depth from the free gingival margin to the beginning of the buccal cortical bone is measured to determine correct preparation depth with the osteotome.



**7** Once the initial osteotomy depth and orientation is made with the 2mm drill, the osteotomy expansion and completion can be done with the osteotomes in soft bone.



**8** Correct prosthetic orientation is maintained while driving the implant to its final position.



**9** A peek abutment is used to make a screw-retained provisional directly to the head of the implant. Retention grooves are cut into the peek abutment and a cotton tip applicator is placed into the screw access hole.



**10** A subepithelial connective tissue graft is harvested from the palate.



**11** A pocket is created on the buccal and the connective tissue graft is positioned to thicken the soft tissue.



**12** Acrylic is added to the voids in the provisional and the concave shape of the peek abutment is maintained thru the provisional.



**13** The occlusion is generously relieved in all functional movements. The use of a 5mm diameter implant is a distinct advantage in the immediate non-functional loading of a

cuspid implant. It usually cannot be done due to prosthetic abutment diameter considerations. The uniform prosthetic platform allows for an esthetic prosthetic result with the advantage of a 5mm diameter implant.

**CASE STUDY**



**14** At 2 weeks post-op, the free gingival margin is in good position and the papilla are falling into place.