DENTAL ANATOMY/SURGEON TEAM

Surgeon Team Members: Midwest Implant Institute
(The first American dental implant institute)
- Dr. Alfred “Duke” Heller
- Dr. Robert Heller
- Karen Fairhurst
- Albert Mascola (Mascola Labs
  www.mascolalabs.com)
I. The IDS unit does implant system advantage provides instrumentation in one kit. It is organized to complement surgical sequence in a simple unit does delivery system.

II. Fresh components every time and sterile.

III. Components offered:

I. 3.5, 3.8, 4.6, 5.4mm Implant offered in bone and tissue level with 8, 10, and 12mm lengths.

II. 2.0mm drill bit starter, 3.5, 3.8, 4.6, and 5.4mm drill bits.

III. 3.5, 3.8, 4.6, and 5.4mm tap.

IV. Handpiece extender

V. Straight Parallel Bar

VI. 30 N*cm Torque Wrench

VII. Thumb Drivers

VIII. Handpiece Implant Driver

IX. Locking Screws

X. Healing Cap Driver

XI. Healing caps, tapering healing abutment, and healing abutment.

XII. Impression coping and Analog

XIII. Abutment
Each squared off section in tray is sold separately in the dental industry. After implant placement and restorative, minimum cost could be $1520 total.

IDS placed everything together in one kit and is priced for $399. If wanting Zirconia crown from Mascola Labs, $479.
I. Drilling to create pilot hole for implant.
II. Tapping to create the threads for the implant.
III. Placing implant.
IV. Cover top of implant with a cap.
V. Allow for osseointegration.
VI. Patient returns to remove the cap.
VII. Doctor takes impression to send to lab.
VIII. Lab creates crown.
IX. Abutment gets placed on top of implant and tightened down.
X. Crown gets placed on abutment.
Drilling

Drill depth lines are measured from the apex drill tip to the top of the horizontal line.
Tapping Threads

- The doctor can use the taps to create threads to allow easy entry of the implant.

- IDS implants are capable of self-tapping.

- IDS offers a tap size for each implant.

- Each tap has height markings identical to the drills.
Dental Implant

- Self-Tapping Design
- Implant Thread Type - Buttress Thread
- Implanted Overall Height
- Tapered Tip - 10° Total
- Thread Pitch - 1.0 mm Pitch
- Implant Neck - 1.0-1.5 mm of no threads
- Locking Internal Hex

Resorbable Blast Media (RBM) Finish
- Micro blasting the implant with Calcium Phosphosilicate
Bone Vs. Tissue Level Implant

Treatment flexibility and suitable for Bone level treatments in combination with trans-or sub-gingival healing. Material is Titanium Grade 23.

Features a smooth neck of 2.5mm in height and are well-suited for single-stage procedures, where the implant is placed at the soft tissue level. Material is Titanium Grade 23.
Inserting the Implant

**Thumb Driver**
- Two/Surgical Side
- One/Restorative Side
- Polycarbonate
- Used to allow finger
  Tightening torque on all
  Drivers that have a square end

**Implant Driver**
- 1/Surgical Side
- Provide torque to implant
- No o-ring, so everything is
  Retained by a tapered friction
  Fit.
- Has laser-markings parallel to
  Each hex face, so surgeon
  Can orientate implant

**HandPiece Implant Driver**
- 1/Surgical Side
- Comes connected to Implant
- Provide torque to implant by contra-
  angle handpiece
- No o-ring, so everything is
  Retained by a tapered friction
  Fit.
- Has laser-markings parallel to
  Each hex face, so surgeon
  Can orientate implant
Cover caps for Implant

Before sending the patient home, the implant will be covered with a cover cap to ensure no tissue can form inside the implant.

Healing Cap Driver
- Driver used to drive all the caps to screw into the implant.

Healing Cap
- 2 Stage procedure.
  Low-profile cap is threaded into implant. The soft tissue is then sutured over the implant. Patient returns for a 2nd surgery and the stitches are removed. A healing abutment or tapering healing abutment replaces the healing cap.

Healing Abutment
- 1 Stage procedure.
- No stitching required.
- 3mm head height.
- Parallel height of implant.
- Rounded on top

Tapered Healing Abutment
- 1 Stage procedure.
- No stitching required.
- 3mm head height.
- 18° total taper.
- Rounded on top

Connection area. Conical connection creates a seal. Cold weld.
Cover caps for Implant

Tapering Healing Abutment is the same angle as the final abutment, so if tissue does grow over the implant, entry of final abutment will be simplified.

Impression Coping
- Can be used as a Temporary prosthesis At the time of implant Placement.
Restorative Side

- Implant Fixture
- Prosthetic Abutment
- Restorative Crown
Removing the caps

Open up the Restorative Side (Right Side of tray) and remove the caps from the implant with the Healing Cap Driver. Use same driver to attach the impression coping to the implant.

![Diagram showing components of a dental implant including Thumb Driver, Healing Cap Driver, Impression Coping, and Locking Screw.](image)
Making the impression

Block out hole at the top with a medium of choice to prevent impression material getting inside. Remove excess material, so that it is flush with top face of the coping.

Closed-Tray Transfer Technique
- Block out top impression coping hole.
- Verify the fit of the impression tray in office.
- Remove tray and inject the elastomeric impression material around the copings making a full-arch impression.
- Unthread the impression coping after material dries and remove.
- The impression material should be pulled out as the impression coping is being removed.
- Attach Analog Impression Coping with the same locking screw. This acts as a replica of the implant.
- Send to lab to create crown.

Analog Impression Coping
Final Abutment

A crown made by the lab (Mascola Labs or lab of choosing) is cemented on top of our stock abutment or the lab can create a screw-retained crown/abutment.

*Mascola Labs provides stock screw-retained abutment and crown for additional $80.00
Frequently Asked Q & A with IDS Engineers

-A stage 2 surgery is not applicable for IDS single use kit.
**SOLUTION:** Offer a la carte items to make stage 1 surgery possible.

-Doctors have expressed concern about the fact that they can’t use other companies wrenches on our drivers. What happens, if they need to torque at exactly at 20 N*cm or even 60 N*cm?
**SOLUTION:** Will need to use our wrench preset at 30N*cm and other side by feel. Possible solution: IDS wants to go back and change all square drivers to an O-ring. In the future, design IDS permanent torque wrench.

-Would like to have more hex driver lengths because tissue level on everyone is different.
**SOLUTION:** IDS will offer 16mm and 22mm healing cap drivers for a la carte items

-Would like to have a smaller impression coping for the anterior areas. Make smaller then designated implant size.
**SOLUTION:** Will have to make another impression coping specifically for the parallel wall healing abutment. Have not started yet.

-IDS only offers closed tray impression technique.
**SOLUTION:** No solution for right now. Closed Tray technique is the most common.

-Tissue Level Implant neck height is at 2.5mm. It is too long.
**SOLUTION:** Next tissue level run, make it at 1-1.5mm. Have not started yet.

-IDS does not offer a Parallel Bar for the Starter Drill Bit
**SOLUTION:** Will need to make a SST 316LVM bar