As the demand for dentures continues to boom, there has never been a better time to start offering the MDI treatment plan in your practice.

Introduced in 1999 as the IMTEC Sendax MDI™ System, the MDI Mini Dental Implant System is a global market leading small diameter implant system, and has quickly become one of the hottest dental products on the market. To the thousands of doctors using the system, it’s no secret why the MDI system is so popular: results.

**Indications:**
- Long-Term Full Denture Stabilization
- Long-Term Partial Denture Stabilization
- Long-Term Splinted Fixation of Bridges

In addition for MDI 3.0 mm implant:
- Long-Term Fixation of Single Crowns

**Benefits:**
- Minimally invasive procedure
- Often no grafting necessary
- Immediate load in most cases
- Very cost effective for the dental practice
- Very affordable for denture patients

MDI is not the only small diameter implant system available but there are plenty of reasons why it is a global market-leading system and has been for years:

**Features:**
- Implants are placed through a small pilot hole, not into a full osteotomy
- Implant designs for stability in soft and dense bone (essential for immediate loading)
- Attachment designs for customized retention for each case
- Attachment designs that forgive up to 30° divergence between two implants
- Original retention can be restored by simply changing an O-Ring
- A market leading small diameter implant training program
How to Get Started with the MDI System

MDI offers market-leading small diameter implant continuing education solutions. MDI Certification Courses are affordable one-day seminars or mini-residencies lead by some of the most experienced small diameter implant clinicians in the world. Contact your MDI Mini dental implant representative to learn more about MDI Certification seminars.

**MDI Certification Seminars Offer:**
- Expert instructors
- Hands-On Practice with realistic anatomical models (yours to keep)
- Group discussion
- Opportunity to review potential MDI case diagnostics with your instructor

**MDI Certification Mini-Residencies Offer:**
- Expert instructors
- LIVE surgical demonstration by your instructor in their clinic
- Group discussion
- Opportunity to review potential MDI case diagnostics with your instructor

---

### 1.8 mm Diameter Implants

<table>
<thead>
<tr>
<th>Ø 1.8 mm</th>
<th>10 mm</th>
<th>13 mm</th>
<th>15 mm</th>
<th>18 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>O-Ball Implants</td>
<td>Ø 1.8 mm</td>
<td>Ø 1.8 mm</td>
<td>Ø 1.8 mm</td>
<td>Ø 1.8 mm</td>
</tr>
<tr>
<td>Collared O-Ball</td>
<td>S1810OB. S1813OB. S1815OB. S1818OB.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Square Head Implants

<table>
<thead>
<tr>
<th>Ø 1.8 mm</th>
<th>10 mm</th>
<th>13 mm</th>
<th>15 mm</th>
<th>18 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collared Square Head</td>
<td>Ø 1.8 mm</td>
<td>Ø 1.8 mm</td>
<td>Ø 1.8 mm</td>
<td>Ø 1.8 mm</td>
</tr>
<tr>
<td>SH-10. SH-13. SH-15. SH-18.</td>
<td>Ø 1.8 mm</td>
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</tr>
</tbody>
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MDI Mini Dental Implants
MDI Implant Selection Guide

<table>
<thead>
<tr>
<th>Implant Type</th>
<th>Ø 1.8 mm with Collar</th>
<th>Ø 1.8 mm without Collar</th>
<th>Ø 2.1 mm with Collar</th>
<th>Ø 2.1 mm without Collar</th>
<th>Ø 2.4 mm with Collar</th>
<th>Ø 2.4 mm without Collar</th>
<th>Ø 3.0 mm with Collar</th>
<th>Ø 3.0 mm without Collar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bone Density</td>
<td>D1</td>
<td>D2</td>
<td>D3</td>
<td>D4</td>
<td>Ø 2 mm</td>
<td>Ø 3 mm</td>
<td>Ø 4 mm</td>
<td>Ø 5 mm</td>
</tr>
<tr>
<td>D1 = Very Dense Bone</td>
<td>✓</td>
<td>✓</td>
<td>NR</td>
<td>NR</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>D2 = Medium Bone</td>
<td>✓</td>
<td>✓</td>
<td>NR</td>
<td>NR</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>D3 = Soft Bone</td>
<td>✓</td>
<td>✓</td>
<td>NR</td>
<td>NR</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>D4 = Very Soft Bone</td>
<td>✓</td>
<td>✓</td>
<td>NR</td>
<td>NR</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

* NR = Not Recommended

MDI Radiographic Transparencies
- Radiographic Transparency for MDI Implants with Collar
- Radiographic Transparency for MDI Implants without Collar
- Radiographic Transparency for 3.0 mm MDI Implants

MDI provides radiographic transparencies at no charge. Ask your MDI implant representative for details.

3.0 mm Diameter Implants

MDI Mini Dental Implants

O-Ball Implants

MAXILLA
- Aggressive thread

MANDIBLE
- Fine thread

Tapered Abutment Implants

MAXILLA
- Aggressive thread

MANDIBLE
- Fine thread

MDI Radiographic Transparencies

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3.0 mm Diameter Implants

MDI Mini Dental Implants

O-Ball with Collar - 1.8mm, 2.1mm & 2.4mm

MAXILLA
- Aggressive thread

MANDIBLE
- Fine thread

Tapered Abutment Implants

MAXILLA
- Aggressive thread

MANDIBLE
- Fine thread

MDI Radiographic Transparencies

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3.0 mm Diameter Implants

MDI Mini Dental Implants

O-Ball with Collar - 1.8mm, 2.1mm & 2.4mm

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3.0 mm Diameter Implants

MDI Mini Dental Implants

O-Ball with Collar - 1.8mm, 2.1mm & 2.4mm

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Tapered Abutment Implants

MAXILLA
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3.0 mm Diameter Implants

MDI Mini Dental Implants

O-Ball with Collar - 1.8mm, 2.1mm & 2.4mm

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MANDIBLE
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Tapered Abutment Implants

MAXILLA
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MANDIBLE
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3.0 mm Diameter Implants

MDI Mini Dental Implants

O-Ball with Collar - 1.8mm, 2.1mm & 2.4mm

MAXILLA
- Aggressive thread

MANDIBLE
- Fine thread

Tapered Abutment Implants

MAXILLA
- Aggressive thread

MANDIBLE
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3.0 mm Diameter Implants

MDI Mini Dental Implants

O-Ball with Collar - 1.8mm, 2.1mm & 2.4mm

MAXILLA
- Aggressive thread

MANDIBLE
- Fine thread

Tapered Abutment Implants

MAXILLA
- Aggressive thread

MANDIBLE
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3.0 mm Diameter Implants

MDI Mini Dental Implants

O-Ball with Collar - 1.8mm, 2.1mm & 2.4mm

MAXILLA
- Aggressive thread

MANDIBLE
- Fine thread

Tapered Abutment Implants

MAXILLA
- Aggressive thread

MANDIBLE
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MDI Radiographic Transparencies

- Radiographic Transparency for MDI Implants with Collar
- Radiographic Transparency for MDI Implants without Collar
- Radiographic Transparency for 3.0 mm MDI Implants

MDI provides radiographic transparencies at no charge. Ask your MDI implant representative for details.

3.0 mm Diameter Implants
Lab Analogs & Restorative Copings for MDI 3.0 mm One-Piece Implants

**O-Ball & Tapered Abutment**
- Lab Analog – O-Ball & Tapered Abutment (LAOB.0)
- MDI 3.0 mm Hybrid Lab analog for tapered head (MII-TLA)
- MDI 3.0 mm lab analog for O-Ball head

**Restorative Copings – O-Ball**
- MDI 3.0 mm O-Ball Impression Coping (2921.3)
- MDI O-Ball Immediate Temporization Cap (2924.3)
- MDI Impression & Waxing Coping* (S4118.3)

**Restorative Copings – Tapered Abutment**
- MDI 3.0 mm Tapered Abutment Impression Coping (2920T.3)
- MDI Tapered Abutment Immediate Temporization Cap (2923T.3)
- MDI Tapered Abutment Waxing Coping (2922T.3)

---

**Prosthetics**

**Lab Analogs**
- O-Ball & Square Head
- MDI 3.0 mm O-Ball Impression Coping (2921.3)
- MDI Collared Standard O-Ball Analog (LASH.3)
- MDI Collared Standard Square Head Analog (LAOB.3)

**Restorative Copings – O-Ball**
- MDI 3.0 mm O-Ball Impression Coping (2921.3)
- MDI O-Ball Immediate Temporization Cap (2924.3)
- MDI Impression & Waxing Coping* (S4118.3)

---

**Metal Housings**

<table>
<thead>
<tr>
<th>Diameter</th>
<th># Diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>MH-1</td>
<td>3.5 mm</td>
</tr>
<tr>
<td>MH-2</td>
<td>3.1 mm</td>
</tr>
<tr>
<td>MH-3</td>
<td>3.1 mm</td>
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**O-Rings**

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>0550-01</td>
<td>Standard MH-1 MDI O-Ring</td>
</tr>
<tr>
<td>0550-10</td>
<td>Standard MH-1 MDI O-Ring (10 pack)</td>
</tr>
<tr>
<td>0550-25</td>
<td>Standard MH-1 MDI O-Ring (25 pack)</td>
</tr>
</tbody>
</table>

**Blockout Shims**

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1010.</td>
<td>Blockout Shims (Pack of 25)</td>
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**Metal Housings**

<table>
<thead>
<tr>
<th>Diameter</th>
<th># Diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>MH-1</td>
<td>4.75 mm</td>
</tr>
<tr>
<td>MH-2</td>
<td>4.0 mm</td>
</tr>
<tr>
<td>MH-3</td>
<td>3.1 mm</td>
</tr>
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</table>

**O-Rings**

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>0351-01</td>
<td>Micro MH-2 MDI O-Ring</td>
</tr>
<tr>
<td>0351-10</td>
<td>Micro MH-2 MDI O-Ring (10 pack)</td>
</tr>
<tr>
<td>0351-25</td>
<td>Micro MH-2 MDI O-Ring (25 pack)</td>
</tr>
</tbody>
</table>

**Blockout Shims**

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1010.</td>
<td>Blockout Shims (Pack of 25)</td>
</tr>
</tbody>
</table>

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**Replacement O-Ring – For Metal Housing**

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>0550-01</td>
<td>Standard MH-1 MDI O-Ring</td>
</tr>
<tr>
<td>0550-10</td>
<td>Standard MH-1 MDI O-Ring (10 pack)</td>
</tr>
<tr>
<td>0550-25</td>
<td>Standard MH-1 MDI O-Ring (25 pack)</td>
</tr>
</tbody>
</table>

**Replacement O-Ring – For Micro Metal Housing & O-Cap**

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>0351-01</td>
<td>Micro MH-2 MDI O-Ring</td>
</tr>
<tr>
<td>0351-10</td>
<td>Micro MH-2 MDI O-Ring (10 pack)</td>
</tr>
<tr>
<td>0351-25</td>
<td>Micro MH-2 MDI O-Ring (25 pack)</td>
</tr>
</tbody>
</table>

**Lab Analogs & Restorative Copings for 1.8 mm, 2.1 mm & 2.4 mm Implants**

**Lab Analogs – O-Ball & Square Head**
- MDI O-Ball Prosthetic Head Analog (5118.3)
- MDI Collared Standard O-Ball Analog (LASH.3)
- MDI Collared Standard Square Head Analog (LAOB.3)

**Restorative Copings – O-Ball**
- MDI 3.0 mm O-Ball Impression Coping (2921.3)
- MDI O-Ball Immediate Temporization Cap (2924.3)
- MDI Impression & Waxing Coping* (S4118.3)

*Compatible with O-Ball & Square Head Implants.
MDI Mini Dental Implants

**Instruments & Drivers**

**Site Preparation**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1325</td>
<td>Ridge Mapping Caliper</td>
</tr>
<tr>
<td>S1011</td>
<td>1.1 mm MDI Surgical Drill (Sterile)</td>
</tr>
<tr>
<td>2000</td>
<td>15 mm Irrigated Drill Extender</td>
</tr>
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</table>

**Optional**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>Locator Drill</td>
</tr>
<tr>
<td>S1013</td>
<td>1.3 mm MDI Surgical Drill</td>
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</tbody>
</table>

**For use with MDI 3.0 mm Implants**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>2012-01</td>
<td>2.0 mm MDI Surgical Drill</td>
</tr>
<tr>
<td>S1013</td>
<td>1.5 mm MDI Surgical Drill</td>
</tr>
<tr>
<td>S1026</td>
<td>2.6 mm MDI Surgical Drill</td>
</tr>
</tbody>
</table>

**Drivers, Wrenches, Ratchet Extension & Adapters**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S9032</td>
<td>MDI Winged Thumb Wrench</td>
</tr>
<tr>
<td>B010</td>
<td>Ratchet Wrench</td>
</tr>
<tr>
<td>B070</td>
<td>Graduated Torque Wrench (including B071)</td>
</tr>
<tr>
<td>S7015</td>
<td>MDI Ratchet Adapter Long</td>
</tr>
<tr>
<td>S7011</td>
<td>MDI Ratchet Adapter Medium</td>
</tr>
<tr>
<td>S7007</td>
<td>MDI Ratchet Adapter Short</td>
</tr>
<tr>
<td>B071</td>
<td>MDI Torque Wrench Replacement Socket (for B070)</td>
</tr>
</tbody>
</table>

**Surgical & Prosthetic Kit**

**S1807**

MDI Surgical & Prosthetic Kit

Includes:
- 1.1 mm MDI Surgical Drill (3 pcs.)
- 1.3 mm MDI Surgical Drill
- MDI Winged Thumb Wrench
- MDI Ratchet Adapter Short
- MDI Ratchet Adapter Long
- MDI Small Surgical Box
- Graduated Torque Wrench (including B071)

**Patient Demonstration Models**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMDI-001</td>
<td>MDI Model Clear Acrylic Base</td>
</tr>
<tr>
<td>SMDI-003</td>
<td>MDI Model Maxilla Base</td>
</tr>
<tr>
<td>SMDI-004</td>
<td>MDI Model Pink Acrylic Base</td>
</tr>
</tbody>
</table>

**Surgical & Restorative Kit & Accessories**

**S1013**

1.3 mm MDI Surgical Drill

**S1026**

Locator Drill

**S1015**

1.5 mm MDI Surgical Drill

**S1015**

2.0 mm MDI Surgical Drill

**S1026**

2.6 mm MDI Surgical Drill

**S1011**

2.0 mm MDI Surgical Drill

**S1015**

1.5 mm MDI Surgical Drill

**S1026**

2.6 mm MDI Surgical Drill

**S1026**

2.6 mm MDI Surgical Drill

**S1026**

2.6 mm MDI Surgical Drill

**S1026**

2.6 mm MDI Surgical Drill
**MDI Mini Dental Implants**

**Implant Surgical Protocols**

**Mandibular Denture Stabilization**

**Preoperative Planning**

After patient selection and evaluation protocols have been completed, the number of MDI implants required (minimum of four) is determined and thoroughly discussed with the patient. The patient’s lower denture is then fabricated or modified, followed by identification of appropriate implant sites. After site selection, the MDI implants should be placed at least 5 mm apart. For mandibular placement, the implants should be placed beginning at least 7 mm anterior to the mental foramen.

**Site Preparation**

- Entry points for each MDI implant are marked on the patient’s tissue.

**1.8 and 2.1 mm diameter implants:**
- The 1.1 mm Pilot Drill is delicately placed over the entry point and lightly pumped up and down until the cortical plate is penetrated. No incision is necessary in most cases.
- In extremely dense bone an extended penetration may be required. Optionally, a 1.3 mm MDI drill (S1013) may be necessary to further widen the drill channel.

**3.0 mm diameter MDI implants** require use of Ø 2.0 mm Surgical drill (2012-01). Optionally, in dense bone a Ø 2.6 mm Surgical drill (S1026) may be necessary to widen the drill channel.
- The average depth is one-third to one-half the threaded length of the implant.
- Recommended motor RPM = 900–1200

**Use of the Winged Thumb Wrench**

Use the Winged Thumb Wrench to thread the implant into place until the wrench becomes difficult to turn.

**IMPORTANT:** If no significant resistance is met during this mid-stage of insertion, the prognosis for the implant reaching its full potential is doubtful. The patient’s bone at this site possibly lacks the required density for predictable success.

**Use of the Ratchet or Graduated Torque Wrench with Ratchet Adapter**

- The Ratchet Wrench or Graduated Torque Wrench will then finalize the insertion process.
- Grasp the wrench (with the directional arrow facing clockwise) and engage the square neck of the Ratchet Adapter into the square opening of wrench.
- This final stage of MDI implant placement requires slow, carefully controlled ratchet turns.
- The ideal implant position allows the abutment head to protrude from the gingival soft tissue at its full length but with no neck or thread portions visible.
- Advance the implant with the Torque Wrench to a minimum of 35 Ncm to allow immediate load.
- If a resistance of at least 35 Ncm cannot be reached a temporary soft-loading without metal housings is recommended.

**CAUTION IN DENSE BONE:** If torque exceeds 45 Ncm unscrew the implant and deepen the drill hole to 2/3 of implant length.

**Use of vial cap Finger Driver**

- Open the MDI implant vial.**
- Carry implant to the site using the vial cap (It can be used as a carrier to the patient’s mouth, as well as a beginning surgical driver.)
- After inserting the implant into the pilot opening through the attached gingiva, rotate clockwise while exerting downward pressure.
- This procedure initiates the self-tapping process and is used until noticeable bony resistance is encountered.

**Final Implant Positioning**

A minimum of 4 MDI implants is required to stabilize a full lower denture.

**IMPORTANT:** The removable o-ring attachments inside an over-denture will not loosen an integrated MDI Implant. A loose implant is one that did not fully integrate into the bone. The primary reason for non-integration is over-instrumentation of the bone. The MDI implant utilizes a fully self-tapping protocol. It demands that the implant bite into the bone and advance itself from the initial point to completion. The procedure requires torquing forces that progress from the Finger Driver to the Winged Thumb Wrench to Ratchet or Torque Wrench with the Ratchet Adapter.
Maxillary Denture Stabilization

1 Site Preparation
Entry points are made with the Pilot Drill (Item S1011) by perforating the cortical plate.

2 Use of the Finger Driver
Insertion of the MDI implant begins with the vial cap and continues with the Finger Driver until more torque is necessary.

2.4 mm diameter MDI implants require use of the 1.1 mm Pilot Drill (Item S1011).

3.0 mm diameter MDI implants require use of Ø 1.5 mm Surgical drill (S1015). Optionally, in dense bone a Ø 2.0 mm Surgical drill (2012-01) may be necessary to widen the drill channel.

3 Use of the Winged Thumb Wrench
Insertion continues with the Winged Thumb Wrench.

4 Use of the Ratchet or Graduated Torque Wrench with the Ratchet Adapter
To verify initial stability is sufficient for each implant, connect the Graduated Torque Wrench and confirm at least 35 Ncm of resistance.

If there is less than 35 Ncm of resistance – which might frequently be the case in maxilla bone – a temporary soft-loading without metal housing is recommended.

IMPORTANT: If no significant resistance is met during this mid-stage of insertion, the prognosis for the implant reaching its full potential is doubtful. The patient’s bone at this site possibly lacks the required density for predictable success.

5 Final Implant Positioning
A minimum of 6 MDI implants are required to stabilize a full maxillary denture.

IMPORTANT: The removable O-ring attachments inside an overdenture will not loosen an integrated MDI implant. A loose implant is one that did not fully integrate into the bone. The primary reason for non-integration is over-instrumentation of the bone. The MDI implant utilizes a fully self-tapping protocol. It demands that the implant bite into the bone and advance itself from the initial point to completion. The procedure requires torquing forces that progress from the Finger Driver to the Winged Thumb Wrench to Ratchet or Torque Wrench with the Ratchet Adapter.

6 Restorative Protocol
For maxillary denture stabilization cases using MDI, a soft reline without metal housing attachments is recommended for the first 4–6 months (see page 20 for Soft Reline Protocol). After osseointegration is complete, the denture can be retrofit with metal housings (see page 18 for Hard Pick-Up Protocol).
MDI Mini Dental Implants

Direct Restorative Protocols

SECURE Hard Pick-Up Protocol

1. Relieve denture to accommodate implants and metal housings, creating individual holes or a trough.

2. Trim Blockout Shims to appropriate length and place one shim on each implant to block out undercuts.

3. Place Metal Housings on each implant and check for passive fit over shims. Place denture in patient’s mouth and check for passive fit over implants and housings.

4. Apply a thin layer of adhesive to the tissue-contact surface of the denture.

5. Extrude Hard Pick-Up material directly onto Metal Housings and into the troughed denture.

6. Seat denture in patient’s mouth and have patient apply normal bite pressure in centric occlusion and allow 7–9 minutes for Hard Pick-Up material to set.

7. Remove denture and all blockout shims, trim and polish. Seat the final denture and inform the patient to keep the denture in place for the first 48 hours after placement to prevent tissue overgrowth.
MDI Mini Dental Implants

Direct Restorative Protocols

SECURE Soft Reline Protocol

Recommended for maxillary cases. May be necessary when implants are placed in softer bone in the mandible.

- Grind down denture base at least 1 mm and relieve denture to accommodate the prosthetic heads of each implant.
- Roughen the tissue-contact surface of the denture with an acrylic bur and degrease the surface with isopropyl alcohol.
- Apply a thin coat of adhesive.
- Extrude Soft Reline material onto the tissue-contact surface of the denture.
- Place the denture in the patient’s mouth and ask patient to apply normal bite pressure in centric occlusion.
- Allow seven minutes for Soft Reline material to set.
- Remove denture and trim excess material with fine scissors or a surgical blade.

- Mix equal drops of glazing base and catalyst.
- Use a brush to apply the mixture to the corresponding margins.
- DO NOT remove the palate of a maxillary denture during this stage.
- Ask the patient to keep the denture in place for the first 48 hours after placement to prevent tissue overgrowth.
- Four to six months after soft load, the soft liner can be replaced with a hard pick-up of the MDI Metal Housings to increase the level of retention.

Indirect Restorative Protocol

1. Seating the Copings
Snap the O-Ball Impression Copings directly onto each O-Ball MDI Implant.

**NOTE:** Soft tissue may prevent full engagement of the coping on implants seated too deeply into soft tissue. In such a case, it is recommended to take an impression of the O-Ball head of the implant without impression copings applied.

2. Seating the Impression
Standard crown and bridge impression techniques are used to pick up the impression copings, recording each implant’s position easily and accurately. Polyether Impression Material is recommended for implant impressions.

3. Removal of the Impression
Once the impression has fully set, carefully remove the tray from the patient’s mouth and confirm all impression copings have been captured accurately in the impression.

4. Insertion of the Lab Analogs
This step can be observed in the clinic or at the dental laboratory.

- Confirm the appropriate MDI Lab Analog will be inserted by reviewing the type of MDI O-Ball Implant used in the case. Use the Collared O-Ball Analog (LAOB) any time Collared O-Ball MDI Implants are used. When Classic O-Ball MDI Implants are used, coordinate the case using Classic O-Ball Analogs (5118.).
- Align the square neck of MDI Analog with the square opening at the base of the Impression Coping. Press the analog into the coping until a snap fit is observed. Insert a lab analog into each coping and prepare the impression to be used to fabricate a stone model.

5. Fabrication of the model
Use standard stone model fabrication techniques to form the model. Once the stone has set completely, carefully remove the impression from the model.
MDI Mini Dental Implants

3.0 mm Implant Protocols

Surgical Protocol

3.0 mm MDI implants are not recommended for placement in extremely dense (D1) or extremely soft (D4) bone.

1. Site Preparation

1a. Probe soft tissue at implant site and record tissue thickness.

1b. Create pilot hole using 500 – 800 rpm and sterile irrigation.

Soft Bone Drilling Protocol (D3 Bone)

Perforate the cortical plate using Ø 1.5 mm Surgical drill (S1015.).

Dense Bone Drilling Protocol (D2 Bone)

Entry divots are made with the Ø 1.5 mm Surgical drill (S1015.). Pilot holes then made with the Ø 1.5 mm Surgical Drill should have a depth equal to approximately ½ the length of the planned implant plus the measurement of soft tissue thickness. Optionally, in dense bone a 2.0 mm MDI drill (2012-01.) may be necessary to widen the drill channel. An endodontic stopper is helpful in marking appropriate depth.

Example: For a 13 mm implant in a site with 2.5 mm soft tissue thickness, a pilot hole of approx. 9 mm is ideal (6.5 mm + 2.5 mm = 9 mm).

Create pilot hole using 500 – 800 rpm and sterile irrigation.

Implant Placement

2. Use of the Finger Driver

Insertion of the MDI implant begins with the vial cap until more torque is necessary.

3. Use of the Winged Thumb Wrench

Insertion continues with the Winged Thumb Wrench.

4. Use of the Ratchet or Graduated Torque Wrench with the Ratchet Adapter

Insertion continues with the Ratchet Adapter connected to the Ratchet or Graduated Torque Wrench.

To verify initial stability is sufficient for each implant, connect the Ratchet Adapter to the Graduated Torque Wrench and confirm at least 35 Ncm of resistance.

Final Implant Positioning

Final placement is achieved once all blasted surfaces are engaged in bone, and the crown margin is positioned at the appropriate level subgingivally.

NOTE: For instructions on impressioning and temporization, see the following page.
MDI IMPLANTOLOGY focuses on dental applications and the development of new technology to simplify dentistry and significantly improve the lives of our customers globally. IMTEC originally created a revolution in implantology with the introduction of the IMTEC MDI implant system and has grown into the global leader in small diameter implants, now MDI mini dental implant system. As a progressive company, MDI IMPLANTOLOGY continues to provide innovative solutions through our line of implants, dental products and digital dentistry technology that reflect our expertise in minimally invasive implantology.

MDI IMPLANTOLOGY is committed to help redefine the evolving field of dentistry, with the goal of providing products and services that transform the way clinicians practice today.

**MDI Mini Dental Implant System**

Great care is taken in the selection of materials, production methods, sterilization and packaging of MDI dental implants and associated components. Strict inspection procedures have been established to ensure all MDI dental implant products are in compliance with an array of regulatory standards.

MDI dental implant products are manufactured under a certified ISO 13485 quality system. In addition, they meet the stringent European Medical Device Directive and thus can carry the CE mark.

**Quality**

MDI dental implant products meet the rigid specifications of the medical device regulations. Many of the products and components are subject to 100% inspection during various stages of production.

**Packaging**

MDI implants and sterile components utilize packaging configurations that have been validated to provide clean, sterile barriers for a duration of at least five years. Each sterile device includes a removable patient chart label for future referencing and simplified record keeping. Dental instrumentation and components are provided non-sterile unless otherwise noted.

**Commitment**

Our commitment is to provide the dental profession with state of the art, cost effective dental implants and associated products, coupled with competent, reliable customer service. We stand ready to serve you at all times. Please visit our website at www.mdi-implantology.com to locate your MDI DEALER for more information.

**Impression & Temporization Protocol**

1. **Taking An Impression**
   - A Pick-Up impression is made using the retentive impression coping.

2. **Forming the Temporary Restoration**
   - Once adjacent teeth are lubricated with petroleum jelly, Tapered Abutment (2923T) or O-Ball (2924T) immediate Temporization Caps are seated on the implants. Temporization Material is then extruded in the temporary crown impression or stint and placed in the patient’s mouth for 1 minute and 40 seconds to 2 minutes and 50 seconds from the onset of mixing.

3. **Finishing the Temporary Restoration**
   - Remove the temporary restoration and cap (now bonded together) from the patient’s mouth. Let the material continue to cure in the matrix for a total of 5 minutes from the onset of mixing. Trim excess flash and remove oxygen inhibition layer with alcohol. Press temporary restoration in place directly on implant abutments. Temporary Cement (Eugenol or Non-Eugenol) is optional due to the retentive nature of the Temporization Cap.

**MDI Implant Products – Limited Warranty**

MDI’s sole obligation and the buyer’s sole remedy in the event of any claimed defect shall be, at MDI’s option, repair or replacement of the product, or refund of the purchase price. Written notice of claimed defect must be received by MDI within reasonable time after discovery not to exceed one year from the date of delivery. Except where prohibited by law, MDI shall not be liable for any loss or damage arising from its dental implant products, whether direct, indirect, special, consequential, regardless of the theory asserted, including warranty, contract, negligence or strict liability. MDI neither assumes, nor authorizes any other person to assume on its behalf any additional liability or responsibility in connection with its dental implant products. Defects misuse, neglect, accident or failure to follow recommended procedures or instructions for use or by modification by the buyer or user voids any MDI dental implant product warranty.

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Technical/Clinical Assistance

Please contact an authorized MDI distributor or the company at www.mdi-implantology.com

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