

BIOMATERIALS KOREA

BioMaterials Korea, Inc

#506, 55 Digital-ro 34-gil, Guro-gu Seoul 08378, Korea

TEL : +82-2-2025-0725(Domestic Sales) / +82-2-2025-0726(International Sales) FAX : +82-2-2025-0728

www.biomk.com

www.facebook.com/biomaterialskorea

2019

MSE SEMINAR

Advanced Maxillary Skeletal Expander (MSE) Seminar with Retrospective Overview, the Latest Developments, and Prospective Advanced Applications

2019. 07. 07 SUNDAY

AM 9:00 ~ PM 4:30

백범김구기념관 대회의실



6 MONTHS TREATMENT



Won Moon, DMD, MS

Thomas R. Bales Endowed Chair in Orthodontics, Program Director Orthodontics residency program, Associate Professor UCLA School of Dentistry and Diplomate of the American Board of Orthodontics

LEARNING OBJECTIVES

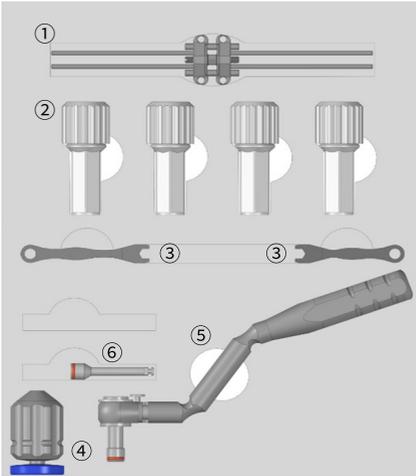
- Understanding the differences in expansion by RPE, SARPE, MARPE and MSE
- Differences between various designs of micro-implant assisted rapid palatal expanders (MARPE), and MSE (a particular type of MARPE)
- How to produce parallel expansion of maxilla in occlusal and frontal planes with MSE
- Nonsurgical orthopedic expansion in adults with MSE
- Orthopedic expansion in high angle cases with MSE
- Orthopedic protraction in Class III cases with MSE and FM
- Management of high-angle Class III cases with MSE and FM
- Improving an obstructive nasal airway with MSE
- Proper fabrication of MSE
- Expansion protocols based on skeletal maturity and biotype
- Other skeletal impacts associated with MSE
- Contraindications
- Overcoming difficult cases
- New and improved MSE
- Future direction in utilization of MSE
- Troubleshooting

PROPOSED SCHEDULE

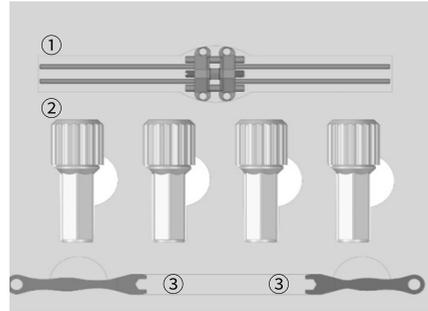
8:30 - 9:00	Registration
9:00 - 10:45	Session 1 Introduction Brief Overview of Conventional Maxillary Expanders
10:45 - 11:00	Break Time
11:00 - 12:30	Session 2 Novel Concept: Micro-Implant Assisted Rapid Palatal Expander(MARPE) and Maxillary Skeletal Expander(MSE) MSE Fabrication and Expansion Protocol
12:30 - 13:30	Lunch
13:30 - 14:45	Session 3 Midfacial Expansion with MSE, and Impact on Surrounding Structures Clinical Advantage of MSE
14:45 - 15:00	Break Time
15:00 - 16:30	Session 4 Contra-indications Innovative Future Application of MSE

Components

Starter kit



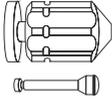
Refill kit



Componets

- ① **MSE Expander** (Available expansion sizes : 8mm, 10mm, 12mm)
Choose an expander size according to a width of patient's palatal vault
- ② **Micro Implant(M.I)** (Ø 1.8mm X 11mm Length, Ø 1.8mm X 13mm Length)
Choose M.I length according to the thickness of patient's palatal bone
*MSE type 1 M.I is Ø 1.5mm, MSE type 2 M.I is Ø 1.8mm
- ③ **2 Activation Keys (Short & Long)**
- ④ **Mini Hand Driver**
Use with initial insertion of M.I placement
The best way is to use Mini Hand Driver for initial
- ⑤ **Ratchet Wrench Driver**
Inserting and Removing T.I
- ⑥ **Short Engine Blade (Shaft)**
Attach to Mini Hand Driver

1



Mini Hand Driver & Engine Blade

2



Insert blade into the mini hand driver hole

3



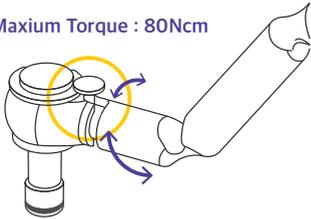
Fix the mini hand driver with on hand and turn it with the other hand

4

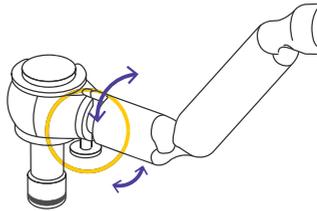


To separate the blade and mini hand driver, press the mini hand driver on blue button

Maxium Torque : 80Ncm

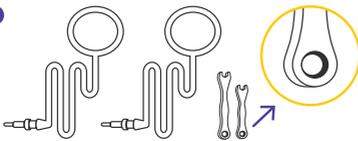


The button is on the Top : Locking direction



The button in on the bottom : Releasing direction

1



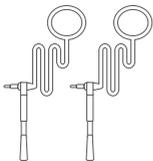
Activation Key & Safety Ring

2



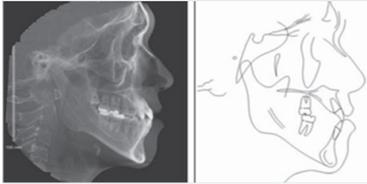
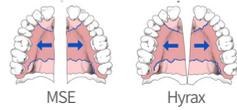
To separate the blade and mini hand driver, press the mini hand driver on blue button

3

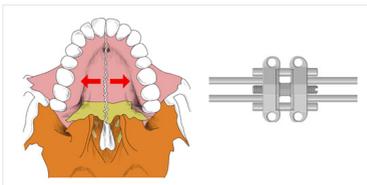


Fix the mini hand driver with on hand and turn it with the other hand

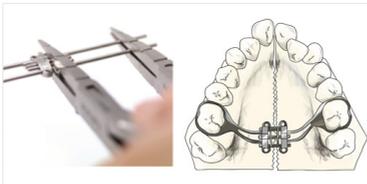
Process



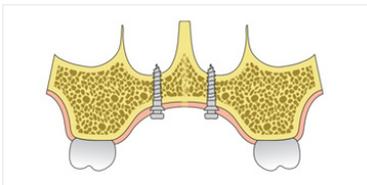
Take 1:1 ratio Cephalo in order to measure thickness of palatal bone and determine the proper length of M.I



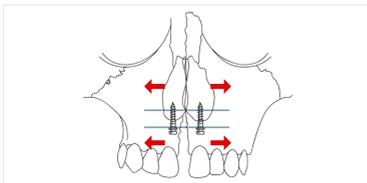
Decide an expander size of MSE by the width of maxillary arch



Fabrication / Lab works



After placement of the expander, insert the M.I accordingly to proper insertion procedure

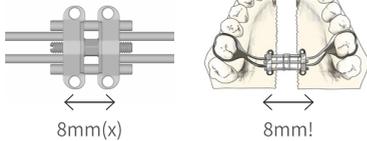


Take another CBCT or Cephalo in order to ensure Bi - Cortical engagement

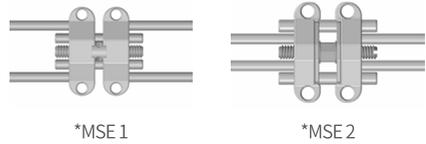
Placement

The expansion size does not mean the width of the MSE (Please see the dimension below)

ex) MSE-8mm



MSE Dimension

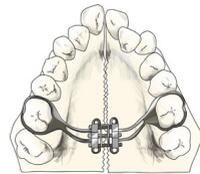


MSE	8mm	10mm	12mm
Type1	13.4mm	15.4mm	17.4mm
Type2	14.1mm	16.1mm	18.1mm

Lab fabrication 1

MSE must be placed between the first and second molar posteriorly as much as possible

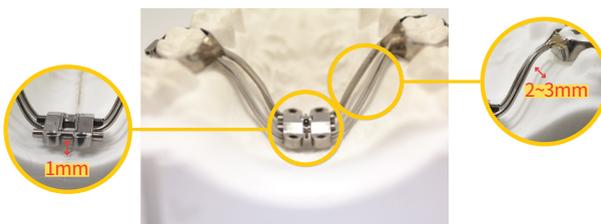
Decide the MSE size considering the width



Lab fabrication 2

This process is one of the most important procedures to success incorporate Bi- Cortical engagement & splitting of the suture

Proper MSE lab fabrication required : (Refer FAQ)

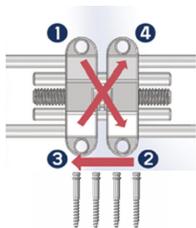


- Less than 2mm space between palatal vault and the expander
- Keep at least 3mm space between supporting arms and soft tissue in order to prevent tissue impingement
- Soldered arms to the molar bands are intended as a guide for proper MSE placement
- Even if the Mid-Palatal suture line is not in the middle, MSE must be placed vertically from the Mid-Line of the maxilla

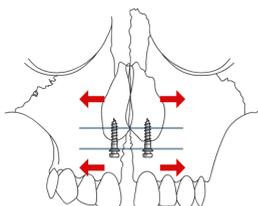
Mini Implant Insertion



The inventor recommends
 To use the manual driver for placing M.I.
 Because the use can feel
 insertion torque and Bi-Cortical engagement



After expander placement,
 insert the M.I.
 When inserting the M.I.,
 make sure they are placed
 vertically with proper
 insertion guidelines (See
 below)



For Bi-Cortical engagement
 following the instruction
 recommended

If the M.I. is not inserted
 vertically, there may be
 friction between M.I. and
 MSE, which may cause
 fracture of Mini-Screws

It is important to insert
 M.I. by applying force
 intermittently

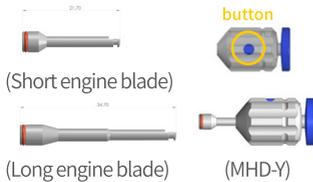
Please do not insert the
 TAD too tightly if so, the
 MSE body will be bent
 because of strong pressure
 or force

When the M.I. has Bi-Cortical
 engagement, patient may
 feel temporary pain or
 itchy nose It is a advised for
 doctor to inform the patient
 in advance

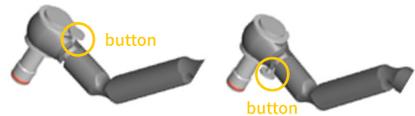
FAQ

Instruments

Press the blue button of MHD-Y(Mini Handle Driver) to attach or detach the SEB



Ratchet Wrench Driver Instruction



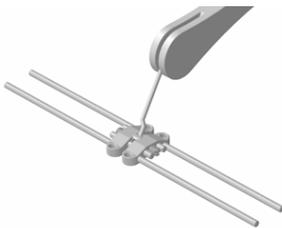
The button is on the Top
: Locking direction

The button is on the bottom
: Releasing direction

Activation Protocol

*Caution : There could be situation when the hexagonal nut is not able to turn by the activation key

In this case, stop activation for max 3 weeks for bone regeneration



4 Turns = 0.8mm (1 revolution)
ex) MSE - 8 means to expand 8mm, Max. 40 turns



6 Turns = 0.8mm (1 revolution)
ex) MSE II - 12 means to expand 12mm, Max. 90 turns

Early teens	3X / week (0.60mm / week)
Late teens	1X / day (0.20mm / day)
Early to Mid-20's	2~3X / day (0.40~0.60mm / day)
Older	Min. 2~3X / day, assistance PRN
After Diastema	1X / day (0.20mm / day)

Early teens	6X / week (0.80mm / week)
Late teens	2X / day (0.27mm / day)
Early to Mid-20's	4~6X / day (0.53~0.80mm / day)
Older	Min. 4~6X / day
After Diastema	2X / day (0.27mm / day)

Information for your patient in advance



MSE를 이용한 입천장 확장 시 예상 가능한 반응

확장 시 앞니 사이 공간이 발생하며, 입천장 확장으로 어금니가 맞지 않을 수 있습니다

*어금니로 꼭 씹거나 "이 약물기"는 장치와 mini implant 안정성에 좋지 않습니다

앞니 사이가 벌어지면서 치아(잇몸)가 아프며, 어금니에도 둔통을 느낄 수 있습니다

입천장 또는 코밑에 불편감이나 간지러움을 느낄 수 있습니다

이마 측면의 관자놀이 부위에서 두통을 느낄 수 있습니다

코 위쪽의 미간 부위에서 통증이 생길 수 있습니다

너무 견고한 뼈의 결합이나 mini implant 주변의 염증으로 확장이 실패할 수 있으며, 이런 경우 재식립 또는 확장 실행을 못 할 수 있습니다

MSE 장치 내 Screw 회전 방법

Screw 회전 스케줄은 의사의 지시에 따라 진행하며, 환자가 개인적으로 회전 스케줄을 변경하면 안 됩니다 (예: 하루 2회전 - 아침, 저녁 각 1회)

구강 내 뼈가 단단히 결합되어 있는 경우 환자(보호자)가 직접 돌리지 못하는 경우가 발생할 수 있습니다

MSE에 식립된 mini implant 주변의 염증으로 장치가 불안정해질 수 있으며 이런 경우 병원에 꼭 알려 주셔야 합니다

MSE(20 Year-Old)



2019 MOON PRINCIPLES

MAR. 1~2



Venue: TPy Archs C/Aleida 88, 28012 MADRID
The Moon Principles by Won 21day Course in Madrid
Contact - Victor Camps (victorcamp@telefonica.net) (victor.camps@moon2019.com)

MAR. 6



Venue: Milan University
Morpho genetics, Spatioinformatics 2, D cephalometric Analysis and Quantification,.....

MAR. 7~8



Venue: Fimma University
Orthodontic Champions League - 4 Seasons in Orthodontics
Contact: Ferdinando Scelari
Tel.: +39-0532-202258 Email: scelari@unife.it

MAR. 9



Venue: Fimma University
MSE Seminar and Workshop in Bologna
Contact - Medica Micro Design Srl
Via Faleria 11, 31044, Montebelluna (TV)
Tel.: +39-347-1589760, Email: info@mmdusa.com

APR. 3



Venue: Mexican Center of Economic Medicine, Periferico Sur 2039, Juarez, Tijuana, Baja California Sur, Mexico, CDMX
International Congress of Current Dentistry: Second (Inter)national Forum of 21st Oral Orthodontology Actual
Contact - Ifigenia Melita Miranda edgar@odontologosactua.com

APR. 24~27



Venue: The Western China International Expo City, Chengde, Sichuan Province, China
The 18th Session of Western China Stomatological Academic Conference
Contact: <http://www.wcds.com/>

APR. 29



Venue: UCLA, Three-Day
Advanced Implant Orthodontics
#4 of 4 Module Course, Edition 2 (2018-2019), at UCLA
Contact: info@ankiprom.com

MAY. 3



Venue: Luce City Center Hotel near the LA Convention Center, 1001 S. Figueroa Street, Los Angeles, CA 90015
Pre-AMO UCLA CE Course, MSE Seminar With Hands-on Workshop, Los Angeles, More info TBA
Contact: <http://www.dentistryucla.edu/learning/uda-orthodontics>

MAY. 4



Venue: LA Convention Center
AAO Annual Session, Los Angeles
Contact: <http://www.aaoonline.org/meetings2019-annual-session>

MAY. 18~19



Venue: Renaissance Moscow, Moscow, Novorot Center Hotel, Leningradsky Ave. 31A
Two Day Seminar in Moscow
Contact: kaznailiev@balm.com +9898393769176
@bformal.com

MAY. 24



Venue: Palais des congrès de Montréal, Montréal, Québec, Canada
The IJDO Annual convention, the Journees dentaires Internationales du Québec, Association des Orthodontistes du Québec
Contact: kaznailiev@balm.com +9898393769176
nhalzhom@bformal.com

JUN. 7



Venue: 5135 Parnassus Avenue, UCSF, California, Box 0430, San Francisco, CA 94143-0430 (USCF)
2019 Annual Wendell Myer Lecture at UCSF
Contact: Melissa.Fung@Program.Managers.UCSF Continuing Dental Education

JUN. 30



Venue: MSE Seminar in Japan
Sunday, June 30, 2019
Contact: hayano@ofaces-nara.co.jp

JUL. 7



Venue: MSE Seminar in Korea
Sunday, June 30, 2019
Contact: IMr.Henry.Na.bnhkhal@gmail.com

SEP. 7



Venue: Omni Dallas Hotel
Orthodontic Summit, Dallas
Contact: http://opt2019.com/2019_registration

OCT. 18



Venue: Madrid, Spain (exact location TBA)
Advanced Implant Orthodontics Course in Madrid
Contact: icentelgarcia@moon2019.com
info@ankiprom.com

OCT. 23



Venue: Willibrod Palahniuc Center - Bucharest
11th WIOC Conference and the 10th AIBCO International Congress, Bucharest, Romania
Contact: contact@wio2019.com, Scientific@wio2019.com, exhibitors@wio2019.com

OCT. 26



Venue: ABO Dental Solutions
MSE Seminar in Poland
Contact: aldersed@gmail.com

OCT. 27



Venue: Ortho - Meziana Ltd, LTZ Conference str, Ormeau 10133 W/10380 Ukraine
MSE Seminar in Ukraine
Contact: Dr.Rezi.hankic@gmail.com

NOV. 1~2



Venue: The Henry in Downtown, MI Two Full Days
Detroit Motor City Study Club
Contact: pena@rstipersonalplans.com
denfurnham@gmail.com

