In the last year of the past millennium we published an article with the same title of this one where I presented a screw range based upon my patents and specifically designed and manufactured by Leone and, today, with the same pride as 15 years ago, I’d like to share with you the clinical results of my new Micro Veltri devices.

In this first out of two articles we’ll focus on the transversal expansion cases performed by using these new screws: they are 40% less bulky compared to the older ones therefore enhancing the patient comfort while assuring the needed strength and precision during the Rapid Expansion of the Palate and/or any biomechanical movements that might be induced by the appliance.

(Pics 1,2.)

Baby REP is a registered trade mark that means less bulkiness, appropriate strength and functionality. Thanks to this new micro design we’ve been able to broaden the clinical application of the REP screws to include the treatment of severely narrow palates, small children, and when used with adults, for obtaining dental movements.

We have not changed our position about the activation protocols and the appliance designs, even today, based on thousands of treated cases. We are more than satisfied with the clinical outcome of the appliances equipped with Veltri screws.

I’d like today to utilize a picture (Pic. 3) taken from a1999 article where you can see a standard 620 Leone 4 arms screw with a quite unique appliance design: the device is only anchored to the first deciduous upper molars what and is clearly visible if the obtained mid palatal suture separation. This protocol, introduced by me several years ago, is now quite popular and, by using the new Baby REP, is even more efficient and comfortable.

Suggested activation protocol:

If the therapy goal is orthopedic (Rapid Expansion of the Palate) I suggest activating the screw three times a day (morning, afternoon and evening) obtaining a .6mm daily appliance widening to reach the planned expansion that usually ranges from 8 to 10 mm.

If the therapy goal is a dental movement (i.e. mono and/or bilateral distalization) and we’d like to stimulate a dentoalveolar change, we suggest activating the appliance once every two weeks.
360 Maxillary Expansion: Today Better Than Yesterday

Pic. 1 - Baby REP Leone A3621-11.

Pic. 2 - Baby REP Leone A3620-11.

Pic. 3 - 1999 case.
Case Report #1 - Baby R.E.P. on Permanent Molars

The clinical protocol for baby R.E.P. bilateral on 1.6; 2.6 with new Veltri screw A3621-11 suggests activating the screw three times a day (morning, afternoon and evening) obtaining a .6mm daily appliance widening up to reach the planned expansion that usually ranges from 8 to 10 mm.
360 maxillary expansion: today better than yesterday

Pic 3A

Pic 3B

Pic 4A: 12th activation day.

Pic 4B: 8mm of activation.

Pic 4C: Wide interincisal Diastema.

Pic 4D: Wide interincisal Diastema.

Pic 4E: occlusal radiograph showing the midpalatal suture separation.

Pic 4F: posterior anterior skull radiograph.
Case Report #2 - Baby R.E.P. anchored on second deciduous molar teeth

Pic. 1A
Pic. 1B
Pic. 1C

Pic. 2A - Monolateral cross bite.
Pic. 2B - Monolateral cross bite.
Pic. 2C - Monolateral cross bite.
Pic. 2D
Pic. 2E
360 maxillary expansion: today better than yesterday

Pic. 3A – Orthopantomography
Pic. 3B – Lateral skull radiograph.

Pic. 4A
Pic. 4B – showing the midpalatal suture separation.

Pic. 4C - 11mm activation.

Pic. 4D – Wide interincisal Diastema.
Pics 5A - Lingual crib and Veltri mini lip bumper.

Pic. 4E – Wide interincisal Diastema.

Pic. 4F – Wide interincisal Diastema.

Pic. 5C - Lingual crib and Veltri mini lip bumper.

Pics 5B - Lingual crib and Veltri mini lip bumper.

Pics 5D - Lingual crib and Veltri mini lip bumper.

Pics 5E - Lingual crib and Veltri mini lip bumper.
Case report #3 - Baby R.E.P. anchored on deciduous first molar teeth

Baby R.E.P. 2x2 bilateral on 5.4; 6.4 with anchorage on only two dental elements in preschool age.

360 maxillary expansion: today better than yesterday
Pic. A - Orthopantomography.

Pic. B - Orthopantomography.

Pic. C - Orthopantomography.

Pic. 3d - Lateral skull radiograph.

Pic. 4A - Baby REP with 9mm activation.

Pic. 4B - RX showing the midpalatal suture separation.

Pic. 4C - Posterior anterior skull radiograph showing the midpalatal suture separation.
360 maxillary expansion: today better than yesterday

Case report #4 - Baby R.E.P. anchored on first and second premolars

G. S. 15 years old

Pic. 1A  Pic. 1B  Pic. 1C

Pic. 2A

Pic. 2B  Pic. 2C

Pic. 2D  Pic. 2E
360 maxillary expansion: today better than yesterday
Case report #5 -
Baby L.E.P. two arms,
anchored on first permanent molars

Baby L.E.P. 2x2 – Bilateral on 1.6 ; 2.6
with anchorage on only two dental ele-
ments in adult age. P.F. 31 years old.

Pic. 2A - Pre TX situation.

Pic. 2B - Pre TX situation.

Pic. 2C - Pre TX situation.

Pic. 2D - Pre TX situation.

Pic. 2E - Pre TX situation.

Pic. 1A

Pic. 1B

Pic. 1C

Pic. 1A - Pre TX situation.

Pic. 1B - Pre TX situation.

Pic. 1C - Pre TX situation.

360 maxillary expansion: today better than yesterday
360 maxillary expansion: today better than yesterday

Cont...
The suggested clinical activation protocol for Baby L.E.P. therapy with an appliance anchored on the first molars is one activation (.2mm) every two weeks up to the needed expansion.