

Pic.1. Application of Taopatch TMJ in a child



Pic.2. Palpation with the Taopatch TMJ



Pic.3. The maximum mouth opening in a child improves with the Taopatch

## THE USAGE OF THE HUMAN UPGRADE DEVICE TAOPATCH® IN THE FACIAL REGION IN ADULTS AND CHILDREN

Dr Vesela Stoichkova PhD
Assistant Professor, Medical University-Sofia, Faculty of Dental Medicine,
Department of Orthodontics

**Aim:** To study the effect of Taopatch® in adults and children from dental point of view - improvement in the mouth opening and pain relief during palpation. Materials and Methods: 149 patients (73 adults, 76 children) have been examined before (pre) and after (post) the application of Taopatch® type TMJ (Pic. 1, 5). Mean age for the adults:33.52±9.37, for the children: 10.62±2.49. The pain was determined with a 0-to-10-scale. The temporal tendon insertion on the medial aspect of the coronoid process was palpated with the index finger intraorally both on the left and on the right side (Pic 2, 6). The maximum opening of the mouth was measured in mm by one and the same investigator using a metal ruler Dentaurum (Pic 3, 7). Three measurements were done for each patient before and after the Taopatch®: maximum opening of the mouth, pain during palpation (on the right R and left L sides). The applicator was placed in front of the tragus. After applying the human upgrade device, the patient had a glass of water and walked 50 steps, moving energetically. The statistical analysis included descriptive statistics and the Paired samples T-test. (Tab. 1, 2) (Pic. 4, 8) **Results:** 

- **1.** Improvement in the measured parameters with the Taopatch® TMJ on has been observed in all the examined patients.
- **2.** Both adults and children reacted positively to the therapy and the results were immediate.
- 3. In adults themax opening has increased from  $48.36\pm6.715$  mm to  $51.43\pm6.463$  mm(t(72)=11.255,p=0.000). Thepain on the right side during palpation has reduced from  $4.89\pm2.547$  to  $3.15\pm2.301$  (t(72)=10.813,p=0.000). The pain on the left side has reduced from  $4.89\pm2.325$  to  $3.32\pm2.185$  (t(72)=9.728,p=0.000).
- 4. In children the max opening has increased from  $45.48\pm6.871$  mm to  $48.45\pm6.867$  mm (t(75)=13.838,p=0.000). The pain on the right side during palpation has reduced from  $5.70\pm2.683$  to  $3.74\pm2.479$  (t(75)=8.993, p=0.000). The pain on the left side has reduced from  $6.38\pm2.612$  to  $4.24\pm2.427$  (t(75)=9.421, p=0.000).

**Conclusion:** The human upgrade device Taopatch®TMJ is safe for used both in adults and children for pain reduction and wider opening of the mouth which has been statistically proven.



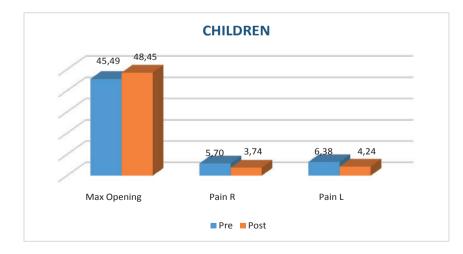
Pic.5. Application of Taopatch TMJ in an adult



Pic.6. Palpation with the Taopatch TMJ



Pic.7. The maximum mouth opening in an adult improves with the Taopatch



Pic.4. Improvement in the mouth opening and pain relief with Taopatch® TMJ in children.

CHILDREN				
	Pre	Post	t <sub>(75)</sub>	р
Max Opening	45.48±6.871	48.45±6.867	13.838	0.000
Pain R	5.70±2.683	3.74±2.479	8.993	0.000
Pain L	6.38±2.612	4.24±2.427	9.421	0.000

Tab.2. Results before (pre) applying the Taopatch® TMJ and after (post) its application in children.



Pic.8. Improvement in the mouth opening and pain relief with Taopatch® TMJ in adults.

ADULTS				
	Pre	Post	t <sub>(72)</sub>	р
Max Opening	48.36±6.715	51.43±6.463	11.255	0.000
Pain R	4.89±2.547	3.15±2.301	10.813	0.000
Pain L	4.89±2.325	3.32±2.185	9.728	0.000

Tab.1. Results before (pre) applying the Taopatch® TMJ and after (post) its application in adults.