

# Dr. James E. Metz

## *Featured Sleep Literature Article*

The Metz Center for Sleep Dentistry | 1271 E. Broad St. | Columbus, OH 43205 | 614.252.4444 | [www.themetzcenter.com](http://www.themetzcenter.com)

On behalf of Dr. James E. Metz and The Metz Sleep Center, I regularly review literature for pertinent information pertaining to sleep-disordered breathing. As relevant information is found, we would like to share it you! We hope this information will be helpful in your daily practice.

Sincerely, Dr. Mickey Harrison

Here is an interesting study on mandibular advancement devices (MAD) impact on inflammatory and hemostatic markers

### **Modulation of inflammatory and hemostatic markers in obstructive sleep apnea patients treated with mandibular advancement splints: a parallel, controlled trial.**

Niżankowska-Jędrzejczyk A, Almeida FR, Lowe AA, Kania A, Nastalek P, Mejza F, Foley JH, Niżankowska-Mogilnicka E, Undas A  
J Clin Sleep Med, 2014;10(3):255-62.

A parallel, controlled trial explored the effects of mandibular advancement devices (MADs) on inflammatory and hemostatic markers in a patient population with mild to moderate OSA. Twenty-two obstructive sleep apnea patients were followed, as were 16 control subjects. Baseline measurements were taken, and then again at 3 months and 6 months for the patients; values for C-reactive protein, interleukin-1 $\beta$ , interleukin-10, interleukin-6, P-selectin, fibrinogen, D-dimer, plasminogen activator inhibitor-1 (PAI-1), thrombin-antithrombin (TAT) complex, activated thrombin-activatable fibrinolysis inhibitor (TAFIa), 6-keto-PGF1 $\alpha$ , glucose and fibrin clot lysis time (CLT) were acquired for all individuals. Compared with controls, OSA patients had substantially higher baseline mean levels of fibrinogen, TAFIa, 6-keto-PGF1 $\alpha$ , and glucose. Along with a reduction in the apnea-hypopnea index, MAD therapy markedly improved levels of IL-1 $\beta$ , D-dimer, TAFIa, and CLT. The treatment outcome led to mostly similar inflammatory and hemostatic markers compared to the control group. Despite a small sample size, this is the first study presented that measures the impact of mandibular advancement therapy on hemostasis, including improved fibrinolysis.