

## **CHAPTER VI**

### **CONCLUSION**

The biomechanical status in term of stress distribution and total displacement of three types of OMI ( 1.6 x 6 mm.) in bone models on their load transfer (2N,5N,10N) show different results in five direction (0°, 30°, 45°, 60°, 90°). The Von Mises stress in every experimental models less than the yield strength ( 790 MPa) which stand for three types of OMI could support the loading force up to 10 N without destruction. For the total displacement, type A,B and C OMI models could be stable with the loading force of 2N ( the total displacements < 0.01 mm.) at every tested direction (0°,30°,45°,60°,90°). For the increased loading force, 5N at all angle, only type A and B OMI models were in the range of stable limitation.

Interestingly, type A stand for Thai product that could support the traction maximum force of 5N at every tested direction while type C which were represented of Germany product could support only two directions (60°,90°).

However only type B OMI model could support 10N loading at every directions without mobility.