



Titanium-Nitride-Oxide is more **ACTIVE** than Titanium to reduce thrombocyte adhesion and fibrinogen adsorption

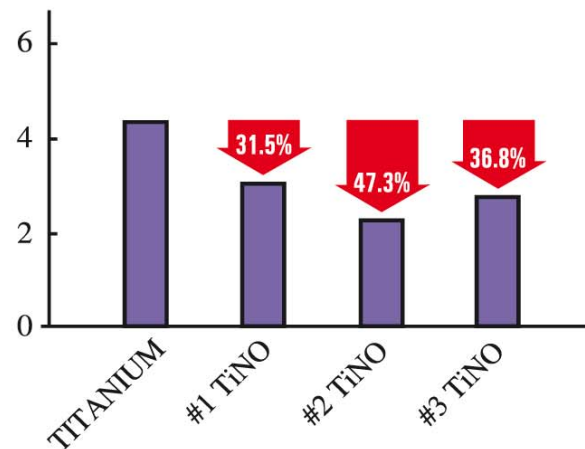
METHODS

Layers of Titanium-Nitride-Oxide (TiNO) and Titanium were procuded by means of metal plasma immersion ion implantation and deposition from a plasma produced by cathodic arc evaporation of Titanium under addition of Nitrogen and/or Oxygen. Thrombocyte adhesion and fibrinogen adsorption on the surface were investigated to study their respective blood compatibility.

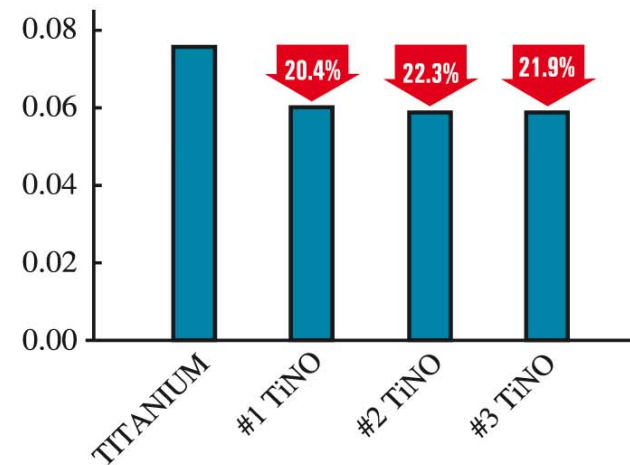
RESULTS

Thrombocyte adhesion and fibrinogen adsorption on the Titanium-based layers.

THROMBOCYTE ADHESION (%)



FIBRINOGEN ADSORPTION



CONCLUSION

The blood compatibility of TITANIUM in part of thrombocyte adhesion and fibrinogen adsorption can be improved by the addition of Nitrogen (N) into its atomic external layer. Thrombocyte adhesion and fibrinogen adsorption are lower for TITANIUM-NITRIDE-OXIDE than for TITANIUM.