**Diamond as an implant material**

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| Diamond has been treated as an ideal nanomaterial in advanced biomedical applications due to its outstanding biocompatibility, biochemical stability, chemical inertness and mechanical stability. More attractively for many biomedical applications, diamond has been selectively doped to become electrically conductive to deliver current to surrounding tissue. Here, we present the results of a number of in-house studies into the biomedical applications of diamond. We will discuss its use in a variety of bioapplications such as:1. as a hybrid material for wound applications [[1,2](#_ENREF_6)];
2. as an orthopaedic scaffold [[3](#_ENREF_7)];

We report that nanodiamond provides a good cell scaffold with all samples tested providing higher cell adhesion compared to the control substrates. Further we report that the addition of nanodiamond to either the implant surface or within the material itself provides antimicrobial properties with decreased bacteria counts on all nanodiamond treated scaffolds. |

**References**

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