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# Graphene: Possibilities for Dental and Medical Applications

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## Abstract

Graphene was discovered in 2004 and is described as the “The thinnest material in the universe”. Graphene is an allotrope of carbon with one-atom-thick planar sheet of  $sp^2$  bonded carbon atom. The mechanical and physical properties of graphene will be mentioned. Due to its excellent properties of graphene, it gains more attraction for biomedical applications apart from field of electronics or optical sensors. Graphene and graphene oxide including its related derivatives of graphene oxide will be discussed. Graphene and its derivatives show many promising applications and one of them is a usage of surface coating. Because it has been shown that graphene could improve the surface properties of metallic material. Therefore, this presentation will discuss the methods of graphene and its derivatives surface coating such as Chemical vapor deposition (CVD), Sol-Gel approach, Spin coating or Electrophoretic deposition etc. Finally, the toxicity of this material will be mentioned.