

**REPORTS AND SCIENTIFIC PUBLICATIONS**  
**ON THE TOXICITY OF GRAPHENE OXIDE TO LIVING ORGANISMS**  
**AND TO HUMANS IN PARTICULAR**

- Graphene oxide generates thrombi:  
[https://www.researchgate.net/publication/328338305\\_Graphene\\_Oxide\\_Touches\\_Blood\\_In\\_Vivo\\_Interactions\\_of\\_Bio-Coronated\\_2D\\_Materials](https://www.researchgate.net/publication/328338305_Graphene_Oxide_Touches_Blood_In_Vivo_Interactions_of_Bio-Coronated_2D_Materials)
- Graphene oxide generates blood coagulation:  
<http://vu2004.admin.hosting8.ing.udec.cl/Proyectos/investigacion-con-grafeno-con-aplicaciones-hemostaticas/>
- Toxicity of graphene-family nanoparticles: a general review of origins and mechanisms.  
<https://particleandfibretoxicology.biomedcentral.com/articles/10.1186/s12989-016-0168-y>
- Toxicity of graphene in human sperm:  
<https://francis.naukas.com/2016/08/21/toxicidad-del-grafeno-y-los-nanotubos-de-carbono-en-el-esperma-humano/>
- The dangers of graphene and its side effects on human biology:  
<https://computerhoy.com/noticias/hardware/peligros-del-grafeno-sus-efectos-secundarios-12591>
- Graphene nanomaterials: synthesis, biocompatibility and cytotoxicity:  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6274822/>
- Nanotoxicology: Breathing carbon nanotubes causes pulmonary fibrosis, a cause of lung cancer:  
<https://francis.naukas.com/2009/10/29/nanotoxicologia-respirar-nanotubos-de-carbono-produce-fibrosis-pulmonar-una-causa-de-cancer-de-pulmon/>
- Safety assessment of graphene-based materials: Focus on human health and the environment:  
<https://pubs.acs.org/doi/10.1021/acsnano.8b04758#>
- Graphene oxide is detected in the body by specialized cells of the immune system causing the same symptomatology as the alleged "SARSCOV2":  
<https://www.graphene-info.com/graphene-oxide-detected-body-specialized-cells-immune-system>
- Toxicity of graphene in normal human lung cells:  
<https://pubmed.ncbi.nlm.nih.gov/21485826/>
- Can nanomaterials induce reproductive toxicity in male mammals?:  
<https://www.sciencedirect.com/science/article/abs/pii/S0048969720378852>
- Graphene oxide affects the outcome of in vitro fertilization by interacting with the sperm membrane in an animal model:  
<https://www.sciencedirect.com/science/article/pii/S0008622317312757#undfig1>

- **Effects of Nano-Graphene Oxide on Testis, Epididymis and Fertility of Wistar Rats:**  
[https://www.researchgate.net/publication/315776736\\_Effects\\_of\\_Nano-Graphene\\_Oxide\\_on\\_Testis\\_Epididymis\\_and\\_Fertility\\_of\\_Wistar\\_Rats](https://www.researchgate.net/publication/315776736_Effects_of_Nano-Graphene_Oxide_on_Testis_Epididymis_and_Fertility_of_Wistar_Rats)
- **Graphene oxide nano- biointeraction induces inhibition of spermatogenesis and alteration of fatty acid metabolism in the nematode *Caenorhabditis elegans*:**  
<https://pubmed.ncbi.nlm.nih.gov/30218681/>
- **Graphene oxide touches the blood: in vivo interactions of “bio-coronated” 2D materials:**  
<https://pubs.rsc.org/en/content/articlelanding/2019/nh/c8nh00318a#!divAbstract>
- **Toxicity of graphene in human sperm and consequences:**  
<https://francis.naukas.com/2016/08/21/toxicidad-del-grafeno-y-los-nanotubos-de-carbono-en-el-esperma-humano/>
- **Graphene oxide can induce mutagenesis (cancer), in vitro and in vivo:**  
<https://www.nature.com/articles/srep03469>
- **Repeated exposure to aerosolized graphene oxide mediates autophagy inhibition and inflammation in a three-dimensional human airway model:**  
<https://www.sciencedirect.com/science/article/pii/S2590006420300107?via%3Dihub#fig5>
- **Single exposure to aerosolized graphene oxide and graphene nanoplatelets did not initiate an acute biological response in a 3D human lung model:**  
<https://www.sciencedirect.com/science/article/pii/S0008622318304706?via%3Dihub#undfig1>
- **Physicochemical properties based on differential toxicity of graphene oxide/reduced graphene oxide in human lung cells mediated by oxidative stress:**  
<https://www.nature.com/articles/srep39548>
- **An assessment of the cytotoxic effects of graphene nanoparticles on the epithelial cells of the human lungs:** <https://journals.sagepub.com/doi/10.1177/0748233718817180>
- **Role of surface charge and oxidative stress in cytotoxicity and genotoxicity of graphene oxide towards human lung fibroblast cells:**  
<https://analyticalsciencejournals.onlinelibrary.wiley.com/doi/10.1002/jat.2877>
- **Graphene nanoparticles induce apoptosis in MCF-7 cells through mitochondrial damage and NF-KB pathway:**  
<https://iopscience.iop.org/article/10.1088/2053-1591/ab33af>
- **Toxicity of graphene oxide and multi-walled carbon nanotubes against human cells and zebrafish:**  
<https://link.springer.com/article/10.1007/s11426-012-4620-z>
- **An in vitro cytotoxicity assessment of graphene nanosheets on alveolar cells:**  
<https://www.sciencedirect.com/science/article/abs/pii/S0169433217335109?via%3Dihub>

- Graphene nanosheets damage lysosomal and mitochondrial membranes and induce the apoptosis of RBL-2H3 cells: <https://www.sciencedirect.com/science/article/abs/pii/S0048969720327467?via%3DiHub>
- Genotoxicity of graphene nanoribbons in human mesenchymal stem cells: <https://www.sciencedirect.com/science/article/abs/pii/S0008622312009499?via%3DiHub>
- Differential genotoxic and epigenotoxic effects of graphene family nanomaterials (GFNs) in human bronchial epithelial cells: <https://www.sciencedirect.com/science/article/abs/pii/S1383571816300262?via%3DiHub>
- A closer look at the genotoxicity of graphene based materials: <https://iopscience.iop.org/article/10.1088/2515-7639/ab5844>
- DNA Melting and Genotoxicity induced by silver nanoparticles and graphene: <https://pubs.acs.org/doi/10.1021/acs.chemrestox.5b00052>
- Hydroxylated-graphene quantum dots induce DNA damage and disrupt microtubule structure in human esophageal epithelial cells: <https://academic.oup.com/toxsci/article/164/1/339/4970755>
- Graphene oxide nanosheets induce DNA damage and activate the base excision repair (BER) signaling pathway both in vitro and in vivo: <https://www.sciencedirect.com/science/article/abs/pii/S0045653517309517?via%3DiHub>
- Genotoxic response and damage recovery of macrophages to graphene quantum dots: <https://www.sciencedirect.com/science/article/abs/pii/S0048969719304073?via%3DiHub>
- Can graphene quantum dots cause DNA damage in cells?: <https://pubs.rsc.org/en/content/articlelanding/2015/NR/C5NR01734C>
- Blood exposure to graphene oxide may cause anaphylactic death in non-human primates: <https://www.sciencedirect.com/science/article/pii/S1748013220300918?via%3DiHub>
- Cellular and molecular mechanistic insight into the DNA-damaging potential of few-layer graphene in human primary endothelial cells: <https://www.sciencedirect.com/science/article/abs/pii/S1549963416000848?via%3DiHub>
- Impact of graphene oxide on human placental trophoblast viability, functionality and barrier integrity: <https://iopscience.iop.org/article/10.1088/2053-1583/aab9e2>
- PEGylation of reduced graphene oxide induces toxicity in cells of the blood–brain barrier: an in vitro and in vivo study: <https://pubs.acs.org/doi/10.1021/acs.molpharmaceut.6b00696>

- **Oxygen content-related DNA damage of graphene oxide on human retinal pigment epithelium cells:**  
<https://link.springer.com/article/10.1007%2Fs10856-021-06491-0>
- **Cytotoxicity effects of graphene and single-wall carbon nanotubes in neural pheochromocytoma-derived PC12 cells:**  
<https://pubs.acs.org/doi/10.1021/nn1007176>
- **Evaluation of graphene oxide induced cellular toxicity and transcriptome analysis in human embryonic kidney cells:**  
<https://www.mdpi.com/2079-4991/9/7/969>
- **Toxicology study of single-walled carbon nanotubes and reduced graphene oxide in human spermatozoa:**  
<https://www.nature.com/articles/srep30270>
- **Dose-dependent effects of nanoscale graphene oxide on reproduction capability of mammals:**  
[https://www.sciencedirect.com/science/article/abs/pii/S0008622315301366?via%3Di\\_hub](https://www.sciencedirect.com/science/article/abs/pii/S0008622315301366?via%3Di_hub)
- **Short-term in vivo exposure to graphene oxide can cause damage to the gut and testis:**  
[https://www.sciencedirect.com/science/article/abs/pii/S0304389417300171?via%3Di\\_hub](https://www.sciencedirect.com/science/article/abs/pii/S0304389417300171?via%3Di_hub)
- **Cyto and genotoxicities of graphene oxide and reduced graphene oxide sheets on spermatozoa:**  
<https://pubs.rsc.org/en/content/articlelanding/2014/RA/c4ra01047q>
- **Potential adverse effects of nanoparticles on the reproductive system:**  
<https://www.dovepress.com/potential-adverse-effects-of-nanoparticles-on-the-reproductive-system-peer-reviewed-fulltext-article-IJN>
- **Assessment of the toxic potential of graphene family nanomaterials:**  
<https://www.sciencedirect.com/science/article/pii/S1021949814000106?via%3Dihub>
- **Nanotoxicity of Graphene and Graphene Oxide:**  
<https://pubs.acs.org/doi/10.1021/tx400385x>
- **Graphene toxicity as a double-edged sword of risks and exploitable opportunities: a critical analysis of the most recent trends and developments.**  
<https://iopscience.iop.org/article/10.1088/2053-1583/aa5476>
- **A differential effect of graphene oxide on the production of proinflammatory cytokines:**  
<https://www.worldscientific.com/doi/abs/10.1142/S1682648515500110>
- **Graphene oxide disrupted mitochondrial homeostasis through inducing intracellular redox deviation and autophagy-lysosomal network dysfunction in SH-SY5Y cells:**  
<https://www.sciencedirect.com/science/article/pii/S0304389421011225?via%3Dihub>

- **Biodistribution and pulmonary toxicity of intratracheally instilled graphene oxide in mice:**

<https://www.nature.com/articles/am20137>

- **A review of toxicity studies on graphene-based nanomaterials in laboratory animals:**

<https://www.sciencedirect.com/science/article/abs/pii/S0273230017300119?via%3Di+hub>

- **Neutrophils degrade graphene oxide, mediated by myeloperoxidase:**

[https://www.researchgate.net/publication/351888431\\_Neutrophils\\_Defensively\\_Degrade\\_Graphene\\_Oxide\\_in\\_a\\_Lateral\\_Dimension\\_Dependent\\_Manner\\_through\\_Two\\_Distinct\\_Myeloperoxidase\\_Mediated\\_Mechanisms](https://www.researchgate.net/publication/351888431_Neutrophils_Defensively_Degrade_Graphene_Oxide_in_a_Lateral_Dimension_Dependent_Manner_through_Two_Distinct_Myeloperoxidase_Mediated_Mechanisms)

- **Expanded acute toxicity and safety pharmacology studies for intravenously administered functionalized graphene nanoparticle formulations:**

<http://europepmc.org/article/MED/24854092>

- **Remote control of the cardiac activity of a living being using graphene:**

<https://www.infosalus.com/asistencia/noticia-manegan-celulas-cardiacas-cultivadas-laboratorio-control-remoto-20180522073436.html>

- **Graphene oxide, administered intramuscularly, accumulates in the lungs, causing pulmonary toxicity and death by granuloma:**

<https://link.springer.com/article/10.1557/jmr.2017.388>

- **rGO (reduced graphene oxide) provokes a host-viral response in the immune system as if it were a pathogen:** <https://www.sciencedirect.com/science/article/abs/pii/S0142961213012088>

- **Graphene oxide induces apoptotic cell death in endothelial cells by activating autophagy:**

<https://www.sciencedirect.com/science/article/abs/pii/S1742706116304810>

- **Cellular and molecular mechanistic insight into the DNA-damaging potential of few-layer graphene in human primary endothelial cells:**

<https://www.sciencedirect.com/science/article/abs/pii/S1549963416000848>

- **Multiple effects of graphene oxide toxicity in interaction with mammalian cells.**

<https://www.sciencedirect.com/science/article/pii/S0169409X16302411#f0025>

- **Toxicity Evaluation of Graphene Oxide in Kidneys:**

<https://pubmed.ncbi.nlm.nih.gov/27043588/>

- **Toxicology of carbon nanotubes and fullerenes:**

[https://copro.com.ar/Toxicologia\\_de\\_los\\_fullerenos.html](https://copro.com.ar/Toxicologia_de_los_fullerenos.html)

- **The puzzling potential of carbon nanomaterials: general properties, application, and toxicity:**

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7466546/>

- **Synthesis and toxicity of graphene oxide nanoparticles: a literature review of in vitro and in vivo studies:**

<https://www.hindawi.com/journals/bmri/2021/5518999/>

- **Radio-frequency characteristics of graphene oxide:**

<https://aip.scitation.org/doi/abs/10.1063/1.3506468>