

# Definition of Biohazardous Agent

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The purpose of the definition is to identify individuals who must take the Biosafety Training. Biohazardous materials are defined as materials of biological origin that have the capacity to produce deleterious effects on humans or animals. They include:

1. recombinant DNA molecules that are transferred into human research participants (human gene transfer),
2. recombinant DNA that is introduced into animals (transgenic animals),
3. synthetic DNA segments which are likely to yield a potentially harmful polynucleotide or polypeptide (e.g., a toxin or pharmacologically active agent),
4. microorganisms where there is a deliberate transfer of a drug resistant trait or of recombinant DNA containing genes for the biosynthesis of products potentially toxic for vertebrates,
5. microorganisms classified as risk group 2 (RG-2) or risk group 3 (RG-3) agents whether infectious or defective (NOTE: RG-4 agents are not allowed on the UNMC/UNO campuses),
6. microorganisms where more than two-thirds of the DNA from RG-2 or RG-3 agents is cloned into other nonpathogenic agents,
7. biological products derived from RG-2 or RG-3 microorganisms,
8. clinical/medical waste e.g., diagnostic specimens, that are used in research and known or reasonably expected to contain pathogens classified as RG-2, RG-3, or RG-4 agents, and
9. culture of more than 10 liters of a biological agent.

## Basis for the Classification of Biohazardous Agents by Risk Group

Risk Group	Risk to the Individual and the Community
RG-1	Agent that is not associated with disease in healthy adult humans

Risk Group	Risk to the Individual and the Community
RG-2	Agent that is associated with human disease which is rarely serious and for which preventive or therapeutic interventions are often available
RG-3	Agent that is associated with serious or lethal human disease for which preventative or therapeutic interventions may be available (high individual risk but low community risk)
RG-4	Agent that is likely to cause serious or lethal human disease for which preventative or therapeutic interventions are not usually available (high individual risk and high community risk)

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