



COLUMBIA UNIVERSITY
ENVIRONMENTAL HEALTH AND SAFETY
Post Exposure **PRINT & GO** Sheet

Recombinant DNA post-exposure guidance

Created: 8/03/2016

Revised: / /

<http://ehs.columbia.edu/rDNAPrintAndGo.pdf>

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What are print and go sheets?

Following an occupational exposure to the agent identified above, this information sheet identifies the immediate "first aid" actions that should be taken. A medical evaluation should be sought immediately following the exposure. The guidance sheet provides information that medical personnel can reference but does not provide individualized medical care or treatment. This sheet should be printed and taken to the medical provider. Also, display your Columbia University ID card while visiting the medical provider.

Organism and Routes of Exposure:

Exposure to recombinant DNA (rDNA) can be mucocutaneous, percutaneous (needlestick, stereotaxic unit), or aerosol. rDNA exposures can be to isolated ("naked") nucleic acid such as a plasmid but are typically to a recombinant organism/agent such as a viral vector, bacteria or cell line. Hazards of rDNA include the effects of the expressed transgene such as an oncogene, or toxin. The onetime introduction of rDNA can introduce potential problems which are hard to gauge and may be long term.

Post-exposure:

1. **Verify that first aid was performed** – Ensure skin was washed with soap and water for 5 minutes and mucus membranes or eyes with plain water for 5 minutes. Confirm that the area of injury is not squeezed and chemicals like bleach are not used as they are not known to be beneficial and may break down the barrier function of the skin.
2. **Document and understand the exposure** – Confirm if exposure was mucocutaneous, percutaneous, or aerosol and how large the exposure was as well as whether the rDNA was in a [lentiviral vector](#), other viral vector, plasmid etc. Determine the nature of the research, contacting the principal investigator (PI) if needed with the exposed individuals' permission, to fully understand the potential hazards. Confirm what type of animal, cells or tissues are being used as these may present separate hazards; including ordinary [bloodborne pathogens](#) (human cells or tissues), zoonoses, chemicals or drug exposures. Note that not all cells and tissues are screened for bloodborne pathogens prior to use in research, and macaque cells and tissues may [harbor macacine herpes virus 1](#) (herpes B virus).
3. **Testing and Follow-up**
Testing for rDNA exposure is generally not helpful. The post exposure visit documents the exposure and so the extent of documentation if something arises down the road may be quite important.
4. **Medication**
No medication is available for rDNA exposures. Medicate only for associated hazards ([bloodborne pathogens](#), [lentiviral vector](#), tetanus booster etc).

Medical Surveillance:

If exposure occurs Mon. to Fri., 8:00 am - 4:00 pm: Employees from CUMC, Morningside and Manhattanville campuses go to the Workforce Health and Safety (WHS) clinic located at Harkness Pavilion 1 South, 176 Fort Washington Ave (212-305-7590). CUMC students go to Student Health Services at 60 Haven Avenue (212-305-3400). Morningside students go to Columbia Health in the John Jay Building (212-854-7426). For after-hours exposure, go to the New York Presbyterian Hospital or Mount Sinai St. Luke's Hospital (212-523-3335) Emergency Room (ER). Give this sheet to the physician so they understand that you may have just been exposed to rDNA, and this is a medical emergency.

Next steps:



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If evaluated at the ER, follow up with respective campus provider next business day. Complete an Accident Report Form there. Notify supervisor of incident. By law, spills and accidents which result in overt exposures to organisms containing recombinant or synthetic nucleic acid molecules must be immediately reported to the Institutional Biosafety Committee and National Institutes of Health Office of Science Policy (NIH-OSP). This reporting requirement is accomplished by investigators by notifying an EH&S Biosafety Officers who will take care of any subsequent reporting.

Contact information:

ICM Veterinarian On Call - (917) 232-5319

Environmental Health & Safety (EH&S) - Ask for a Biosafety Officer. Mon. - Fri: 9 am - 5 pm. Medical Center - (212) 305-6780

Public Safety can contact a Biosafety Officer after business hours. Medical Center - (212) 305-7979. Morningside - (212) 854-5555