

安全警示

SAFETY ALERT

3月
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14日

警惕试剂飞溅风险！ 一则试剂溅射入眼事故警示

真实案例还原：

2025年1月22日下午，一名学生在实验室开放实验台上使用移液枪重悬吹扫250ml离心瓶中的大肠杆菌时，2滴大肠杆菌表达菌株液体溅射入右眼。事件发生后，学生马上使用洗眼器冲洗双眼并立即前往校门诊部就诊✅，医生予以大量清水冲洗后开具左氧氟沙星滴眼液。



事故分析：

1. 为了观察离心瓶内悬液的情况，学生在吹吸时面朝瓶口❌，因为移液枪头触碰到瓶内大肠杆菌沉淀，枪头堵塞，导致在操作过程中液体溅入她的右眼。
2. 案例中，学生在执行可能导致液体飞溅的实验操作时，没有佩戴护目镜❌

经验总结：

1. 遵守实验室着装规范。本案例中，学生进入实验室有穿实验服✅，但没有佩戴护目镜！切记如实验操作可能会发生液体飞溅，请根据危险因素选择合适的PPE以保护口腔、眼部和面部，避免液体飞溅导致受伤！
2. 规范生物实验操作程序。处理生物类试剂或样品时，请在生物安全柜内进行，并将生物安全柜的移门拉低至距柜面160-250mm处！
3. 警惕液体飞溅风险。在执行任何可能导致液体飞溅的实验操作时请小心缓慢地进行，未封口容器内的溶液的体积≤所盛容器体积的2/3，可降低液体溅出的概率！
4. 尽可能选择透明材质的试剂瓶盛装液体试剂。本次事故中，学生使用了半透明材质的离心瓶盛装大肠杆菌悬液，难以看清瓶内液体的情况。建议在实验条件允许的情况下，尽可能选择透明材质且便于观察瓶内状况的试剂瓶。
5. 熟悉实验室事故应急流程和方法。本案例中，学生在液体飞溅入眼后，马上在洗眼器用清水冲洗了双眼至少15分钟并在冲洗结束后立即到门诊部就诊，这一操作大大减轻了她眼睛受到的伤害，这是正确的应急流程，值得学习✅！

不过也请切记发生实验室事故，需要第一时间上报实验室安全负责人哦！

大数据预警：

经大数据检索，社交平台上有多起类似事故▶部分受害者出现角膜损伤▶严重情况下甚至导致永久性视力下降。



参考资料：

[NO. 017 Biosafety \(II\) - HSE HKUST GZ EN](#)

[第十三章 个人防护装备 - HSE HKUST GZ EN](#)

[Emergency, Alert and Response Guidelines in Laboratories](#)

[洗眼设备和应急喷淋程序](#)

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安全警示

MAR 14
NO. 006

Incident of resuspended E. coli strain liquid splashing into eyes

Brief Description:

On January 22, 2025, in the afternoon, when a student used a pipette to resuspend E. coli in a centrifuge bottle on the laboratory bench, 2 drops of E. coli expression liquid splashed into the right eye from the blockage of the pipette tip. The student immediately used the eyewash station on the sink to rinse her eyes and then went to the clinic for treatment immediately when she found her eyes swollen. The doctor rinsed her eyes with plenty of water and prescribed levofloxacin eye drops.



Analysis of Factors affecting the accident:

1. When the student used a pipette to resuspend E. coli, to see clearly the suspension in the centrifuge bottle, she faced the mouth of the bottle, but she accidentally touched the pipette tip, causing droplets to splash into her eye.
2. Insufficient safety awareness. The student was not dressed properly. She did not choose appropriate face shielding based on risk factors when performing any experiments that may cause liquid splashing.

Learning Points:

1. **Follow the laboratory dress code.** Please wear a lab coat and safety glasses when entering the laboratory; if liquid splashing may occur during experimental operations, please choose appropriate PPE according to risk factors to protect your mouth, eyes and face to avoid injuries.
2. **Follow microbiological standard operating procedures.** Handling biological reagents or samples in a biological safety cabinet, and lower the sash to 160-250mm from the cabinet's surface.
3. **Be aware of the risk of liquid splashing.** Any experimental operation that may cause liquid splashing must be performed carefully and slowly. The volume of the solution in the unsealed container should not exceed 2/3 of the container to reduce the probability of liquid splashing.
4. **It is recommended to choose reagent bottles made of transparent material** so it is easy to observe the conditions inside.
5. **Understanding laboratory emergency procedures.** When liquid splashes into the eyes during the experiment, it is recommended to flush the eye with clean water immediately for at least 15min, report it to the laboratory safety officer in a timely manner. For details, please refer to "the Hong Kong University of Science and Technology (Guangzhou) Laboratory Safety Emergency Guide".

Big Data Warning:

After big data retrieval, there have been many similar accidents on social platforms like some victims have corneal damage, and in serious cases, even permanent vision loss.



Reference

[NO. 017 Biosafety \(II\) - HSE HKUST GZ EN](#)

[第十三章 个人防护装备 - HSE HKUST GZ EN](#)

[Emergency, Alert and Response Guidelines in Laboratories](#)
[洗眼设备和应急喷淋程序](#)