

General Laboratory Safety Practices

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- **Tip #1: Ask yourself, "What am I working with? What are the hazards?"**
- Common hazards in the laboratory include: animal, biological, chemical, physical, and radiological. If there is an accident or emergency situation involving these hazards:
- **Seek immediate assistance.** If you are splashed by any of these materials, use running water from an eyewash station or emergency shower for at least 15 minutes or until emergency assistance arrives and provides you with different instructions.
- **Report to your supervisor** any accident, injury, or uncontrolled release of potentially hazardous materials - no matter how trivial the accident, injury, or release may appear.
- **Tip #2: Be prepared.**
- Attend all required laboratory safety training prior to the start of your research assignment.
- Read all procedures and associated safety information prior to the start of an experiment.
- **Perform only those experiments authorized by your supervisor.**
- **Follow** all written and verbal **instructions.** Ask for assistance if you need guidance or help.
- Work under direct supervision at all times. Never work alone in the laboratory.
- Know the locations and operating procedures for all safety equipment. This includes the eyewash station and safety shower.
- Know the locations of the nearest fire alarms and at least two ways out of the building. Never use an elevator in emergencies.
- Be alert and proceed with caution at all times in the laboratory. **Immediately notify the supervisor of any unsafe conditions.**
- Know the proper emergency response procedures for accidents or injuries in the laboratory.

- **Tip #3: Prevent potential exposure.**
- Conduct yourself in a responsible and professional manner at all times. No pranks. No practical jokes.
- Dress for work in the laboratory. Wear clothing and shoes that cover exposed skin and protect you from potential splashes. Tie back long hair, jewelry, or anything that may catch in equipment.
- **Never eat food, drink** beverages, chew gum, apply cosmetics (including lip balm), or handle contact lenses in the laboratory.
- Use a chemical fume hood or biosafety cabinet, as directed by your supervisor.
- Observe good housekeeping - keep aisles clear.
- Report damaged electrical equipment to the supervisor. **Do not use damaged** electrical **equipment**.
- **Do not leave active experiments unattended**. Never leave anything that is being heated or is visibly reacting unattended.
- **Tip #4: Protect yourself, others, your research, and the environment.**
- Practice good personal hygiene. **Wash your hands** after removing gloves, before leaving the laboratory, and after handling a potentially hazardous material.
- While working in the laboratory, wear personal protective equipment - eye protection, gloves, laboratory coat - as directed by your supervisor.
- **Properly segregate and dispose of all laboratory waste.**

- https://youtu.be/YUeW4Xz_7M0
- <https://youtu.be/Y-dhcOqL5WA>

What mask do you need?

華人健康網



Medical mask
(Block droplets,
particles and bacteria)



Activated carbon mask
(Adsorbs organic gases and odors)



N95 mask
(Lots of dust)

What gloves do you need?



latex gloves

Acid/Alkali Resistant Gloves

Puncture resistant gloves



Heat resistant gloves



Cryo gloves



Cut wound








Liquid nitrogen frostbite

1F 緊急疏散路線

Emergency Evacuation Map : 1F



圖例 Legend


- | | | |
|---|---|---|
|  滅火器 (Fire Extinguisher) |  洗手間 (Restroom) |  緊急出口 (Exit) |
|  消防栓箱 (Hydrant) |  避難方向 (Exit Direction) | |


B1 緊急疏散路線


Emergency Evacuation Map : B1




圖例 Legend

 滅火器 (Fire Extinguisher)

 洗手間 (Restroom)

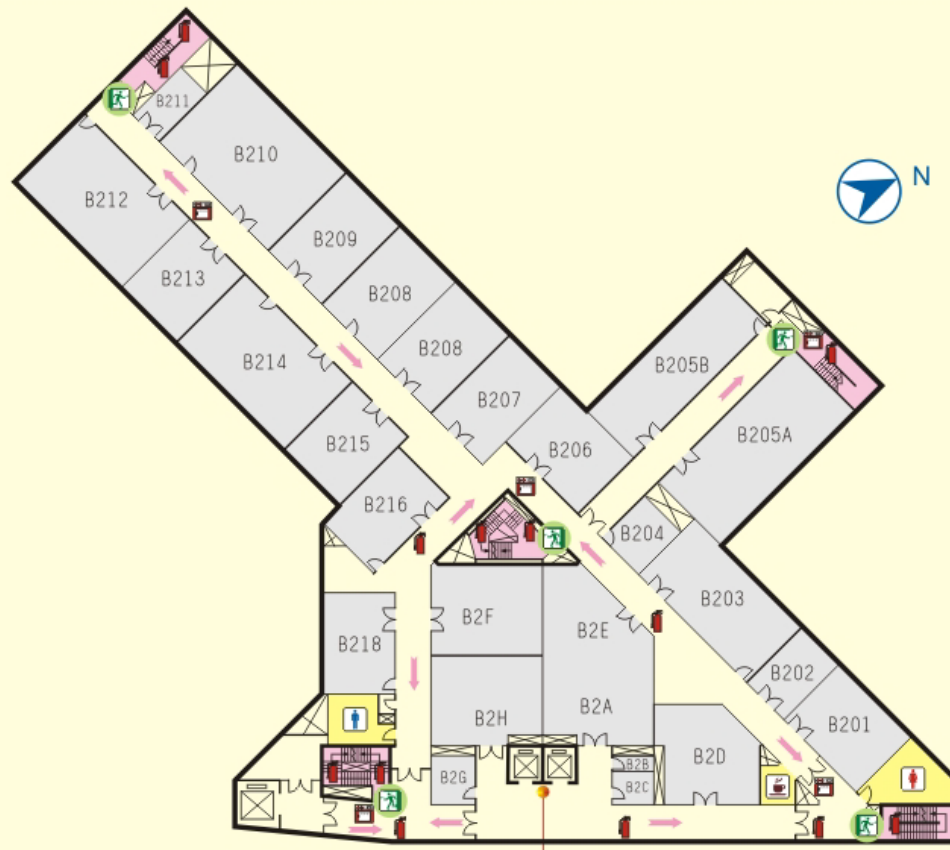
 緊急出口 (Exit)

 消防栓箱 (Hydrant)






 避難方向 (Exit Direction)

B2 緊急疏散路線

Emergency Evacuation Map : B2



圖例 Legend

- | | | |
|---|---|---|
|  滅火器 (Fire Extinguisher) |  洗手間 (Restroom) |  緊急出口 (Exit) |
|  消防栓箱 (Hydrant) |  避難方向 (Exit Direction) | |

Various (emergency) events response

- Fire
- Toxic leakage
- Earthquake
- Typhoon
- Jump (stop) electricity
- Information security
- Feel uncomfortable

Emergency phone number :
IOP counter : 6712
Security team : 8901
Director : 6722

火災應變常見問題大解密!

火場內為什麼「不要」
浪費時間尋找濕毛巾搗口鼻逃生?



濕毛巾擋不住濃煙中有毒氣體
且延誤寶貴的逃生時間

火場內為什麼「不要」躲浴室?



火災逃生避難時關門很重要嗎?

關門原則

■ 火在身邊

■ 火在門外



避免火煙迅速向外擴散



在相對安全空間內避
難等待救援



不適合關門避難:

鐵皮、木造等結構

非耐燃材料隔間(如美耐板)

無法阻絕高溫與濃煙的塑膠門、玻璃門

身上著火怎麼辦?

■ 局部小面積著火時，可用手拍熄



■ 四肢或身體大面積著火，勿慌張亂跑，
切記「停、躺、滾」!

停 stop → 躺 drop → 滾 roll



急毒性化學品濺身後果

- 硫酸(H_2SO_4)
- 氫氧化鈉($NaOH$)
- 鹽酸(HCl)
- 氫氟酸(HF)※
- 石碳酸(Phenol)※
- 硝酸(HNO_3)※
- 甲醇(Methanol)※
- DMS (Dimethyl sulfate)※
- 四甲基銨(TMAH; Tetramethylammonium hydroxide)※



Sulfuric acid (H_2SO_4)



hydrofluoric acid (HF)



Caustic soda ($NaOH$)

※可能造成全身性的傷害

*摘自台北榮總毒物諮詢中心鄧昭芳醫師簡報

Earthquake

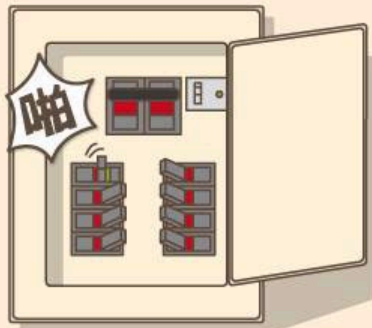


Typhoon



Jump electricity

跳電了該怎麼辦？

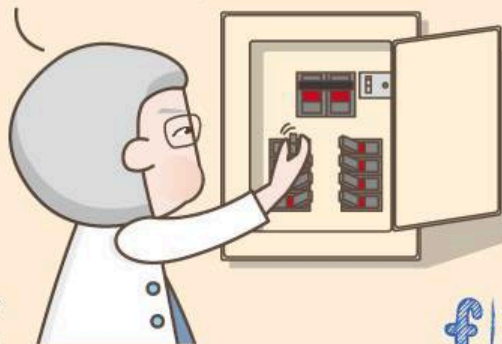


打給台電？

檢查用電負荷



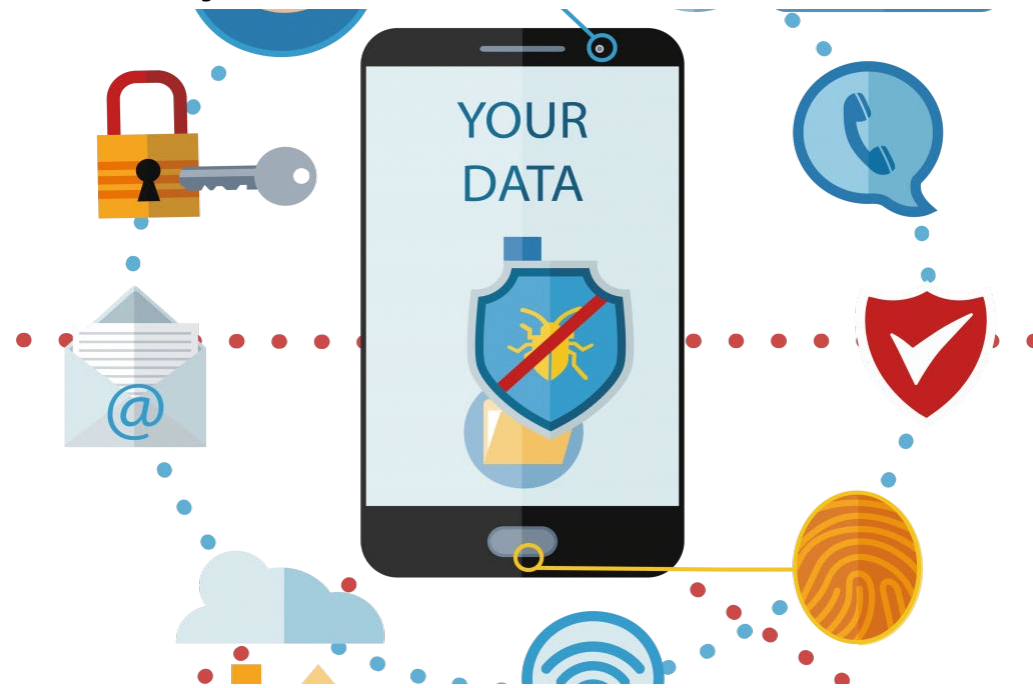
先切off再切on試試,不行再找水電師傅來!



用電安全

電力粉絲團

Information security



1. It is strictly forbidden to use unauthorized software
2. Prevent downloading of Trojan software (ransomware)
3. Personal (research) data protection



Sexism
verbal violence
(Sexual) Harassment...etc.



性騷擾行為

無故暴露隱私處

展示或傳閱
色情影片、圖片或騷擾文字

羞辱、貶抑、敵意
或騷擾的言詞或態度

毛手毛腳、掀裙子
或偷窺裙底



開別人性別氣質
或性傾向的玩笑

跟蹤、尾隨、不受歡迎的追求

偷窺、偷拍、
緊盯身體隱私部位



趁機親吻、擁抱、
觸摸胸臀
或其他身體隱私部位



Thank you for your attention!!