

Conducting Research Safely



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Biochemistry

Safety Equipment

Personal Protective Equipment (PPE)

- Eye protection
- Appropriate clothing
- Lab coats and aprons
- Gloves
- Breathing equipment



Institutional Safety Equipment

- Fume Hoods
- Eye washes and Safety showers
- "Safety Culture"

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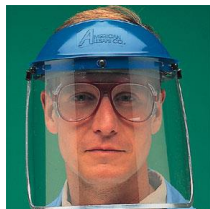
PPE – Eye Protection

Something is ***always*** required

- Glasses
- Goggles
- Face shields



Use your best judgment or specific lab policies



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PPE – Appropriate Clothing

Footware

No open toes – splash, glass



Clothing

Natural fibers are better – cotton, leather
Long pants/sleeves vs short?

Hair

Tied back



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PPE – Lab Coats and Aprons

Lab coats

Sometimes required (industry, sterile envir.)

Sleeves...

Cheap lab coats sometimes synthetic fibers...

Aprons

Good for protecting clothes

Messy experiments

Broader range of materials (rubberized, etc)

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PPE - Gloves

Material – When in doubt, ASK

Latex

Nitrile

<http://www.ehs.berkeley.edu/hs/63-laboratory-safety/94-glove-selection-and-usage.html>

When to wear

When NOT to wear

Always assume exterior is contaminated



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PPE – Breathing Equipment

Respirators

Extreme conditions and situations

Dust masks

Silica gel dispensing

Biohazards



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Fume Hoods

Proper use

Keep them closed

Avoid turbulence

Keep them clean

Economy vs. Effectiveness

Not all “hoods” are “fume hoods”



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Eye Washes and Safety Showers

Eye washes

Test/Flush them regularly

Try them out – required in industry

Find them while blind

Safety Showers

Locate them

DON'T randomly test!

Fire blankets...

NEVER WORK ALONE



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“Safety Culture”

Probably more important than the details

Makes it easier to “remember”

In industry (chemical or otherwise)

PPE is “normal”

Documented lack of PPE is actionable

OSHA...



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