

## Conducting Research Safely



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## 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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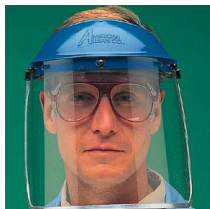
## PPE – Eye Protection

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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