

## UMD Guardian App

*Is that last box harder to check than the rest?*

Consider using the UMD Guardian App as a part of your working alone plan. The University of Maryland has partnered with Rave Guardian to provide safety and security assistance for faculty, students, and staff on campus.

- Set a safety-timer
- Text a tip to UMPD
- Call emergency services



## How to Get the App

*Signing up for an account is easy and free!*

Download the Rave Guardian App from the App Store or Google Play.

Sign up with a University of Maryland email address to access the UMD-specific app which provides direct communication with UMPD in the event of an emergency.

## Case Study

On the evening of July 4th at a research university, a senior researcher was doing a routine distillation when the flask exploded. The reaction, which was due to a degraded chemical, sparked a fire which ignited the researcher's clothing. Glass shrapnel severed an artery and the researcher collapsed trying to reach the emergency phone. A faculty member, who happened to be working in their office, heard the fire alarm and was able to stop the bleeding, put out the fire, and summon help.

## Setting Up a Safety Timer

This app can set up a safety timer that will alert your chosen guardian—which you can select from your phone's contact list—if the timer ends without the user turning off the timer.

To set a safety-timer:

1. Open the Rave Guardian app and click on the yellow safety timer icon.
2. Select your guardian and set the timer for an amount of time that would signal that something is wrong if the timer has expired.
3. In the Timer Session Notes, provide instructions on how your guardian should react to the safety timer running out, such as calling the phone in the laboratory. Consider adding some information about your location and your experiment.
4. Next, start the timer and begin your research.



## More Resources

If you need emergency assistance, call UMPD at **(301) 405-3333**

For help determining if your work can be done safely alone or any safety questions, contact **labsafety@umd.edu**

For more information on this app and how to register for an account, visit **umpdnews.umd.edu/umdgardian**

# Working Alone in the Lab



DEPARTMENT OF  
**ENVIRONMENTAL SAFETY,  
SUSTAINABILITY & RISK**

**RESEARCH SAFETY**

## Your Safety Is Our Top Concern!

What does **alone** mean? You would be **alone** if you were working by yourself when no one else could see or hear you if you were to call out for help in an emergency.

Accidents can happen at any time to anyone, even experienced researchers. It just takes a second to create a serious situation. Having someone available who can help you respond to a serious situation could save your life.

Working alone can be unsafe, especially after regular business hours and on weekends, when available campus resources are limited. This pamphlet provides guidance on how to evaluate and manage the risk of your research activities you are considering conducting alone.

## What Can I Do?

*Here are a few strategies you can use to avoid working alone.*

### Find a buddy

If your research has to occur outside of regular business hours, use the buddy system. Reach out to other members of your lab, or a lab nearby, and ask if anyone else is willing to work at the same time as you.

### Plan your experiments

Scheduling can help you avoid doing experiments alone altogether or at least allow you to manage time so that you schedule the more hazardous parts of an experiment when others are around.

## Risk Assessment

Sometimes you may not be able to avoid working alone. However, not all lab activities are safe to perform alone.

How can you tell what you can work on alone?

You need to determine the risk, or likelihood that something bad will occur. First, you need to think about what hazards you may be working with or near. Then, you want to think about what could potentially happen if something went wrong. The more severe or likely an accident would be, the higher the risk of the activity.

High risk activities must **never** be conducted alone.

**Use this checklist to assess your risk:**

**Y N**

- Am I using equipment with exposed mechanical, laser, or electrical hazards?
- Am I using hazardous chemical, biological, or radioactive materials?
- Will I be working alone after regular business hours?
- Does my lab lack access to a reliable method of communication?
- Is this my first time performing the procedure by myself?
- Am I scaling-up or making changes to a procedure?
- Could an emergency involving this procedure lead to me not being able to call for help or evacuate the lab?

If you answered **No** to all of these questions, your activity may be considered low-risk and you may be able to work alone.

More **Yes** answers means your activity is higher risk and you should reconsider doing it alone.

Consider your abilities and condition at the time of work. Rushing, illness, fatigue, and other factors can also impact your risk.

## Not So Fast...

Even if you think your work is low risk, your **principal investigator (PI)** makes the ultimate decision on whether you can work alone. Some labs prohibit all researchers from working alone.

PIs make this determination based on the risk level of the experiment, experience of the researcher, and laboratory conditions.

Having this conversation with your PI is essential. They may raise your awareness to other risks related to your work that you haven't considered.

You **MUST** get your PI's approval **BEFORE** working alone.

## Planning for Success

Even if you are approved to work alone you should have a plan on how to perform your experiment and respond in case of an emergency (fire, spill, exposure, etc.). This plan should be written out so that you don't forget any steps.

Think you are ready to work alone? Here are some questions you should be able to answer **Yes** to:

**Y N**

- Is my written procedure detailed enough that I will use it?
- Have I allotted enough time to do this experiment?
- Am I rested enough to perform this work safely?
- Do I know what to do in case of an emergency?
- Do I know where my emergency safety equipment is and how to use it?
- Do I know the fastest way to evacuate the building?
- Does someone know where I am and would know if I'm not home on time?