



Southwest Center
FOR AGRICULTURAL HEALTH, INJURY PREVENTION, AND EDUCATION

How to protect yourself & your family:

Pesticide Safety

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Objectives



**Contact Areas/
Routes of Exposure**



Storage Procedures



**Symptoms/
Reducing Exposure**



Washing Procedures



Contact Areas



Pesticides can be ingested or absorbed through your skin.

For example:

1. When you eat or drink after applying pesticides but forget to wash your hands.
2. When you go to the bathroom after applying pesticides but forget to wash your hands.
3. When you wipe your eyes or forehead after applying pesticides but forget to wash your hands.

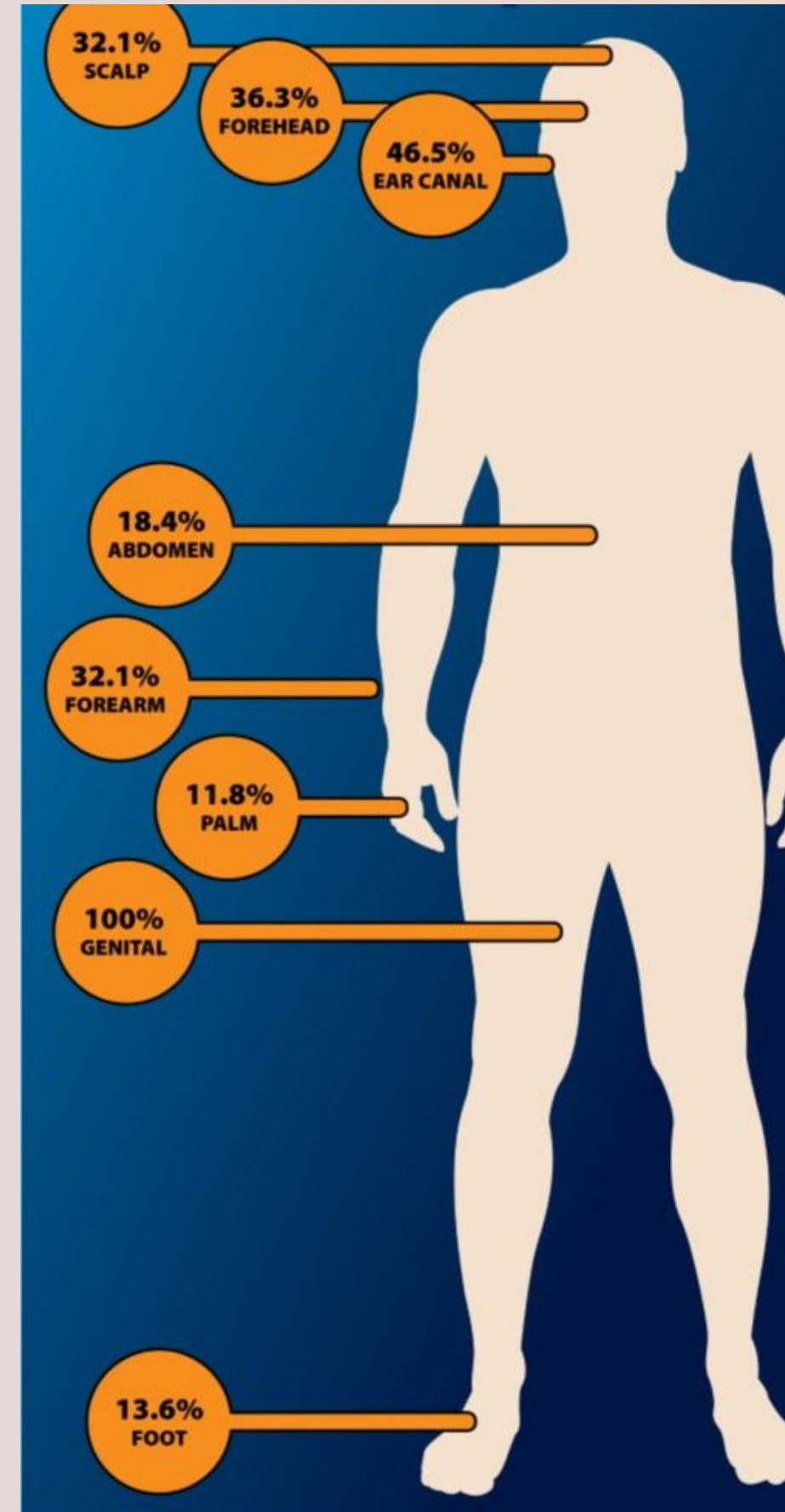


Contact Areas



Protect your hot spots!

- *Wash your hands immediately after applying or handling pesticides!*



Routes of Exposure



Oral Exposure

Pesticides are swallowed or ingested.

- Eating, drinking, smoking, or chewing tobacco without washing hands.
- Accidentally consuming a pesticide as food or drink
- Using pesticides on food by accident.
- Accidentally or carelessly splashing pesticide into one's mouth.



Routes of Exposure



Dermal Exposure

Pesticides come in direct contact with the skin.

- Handling pesticides or their containers without cleaning hands.
- Pesticides are sprayed or splashed on bare skin.
- Using pesticides in windy conditions. **Pesticide drift!**
- When handling pesticides or their containers, wearing insufficient personal protection equipment.



Routes of Exposure



Inhalation Exposure

Breathing in pesticides.

- Contact with pesticides for an extended period in enclosed or poorly ventilated locations.
- Vapors from fumigants and other pesticides are inhaled.
- Using pesticides without proper protective equipment and inhaling vapors, dust, or mist.
- Inhaling pesticide vapors shortly after application.
- Using the wrong respirator or one that isn't correctly fitted, as well as filters and cartridges.



Routes of Exposure



Ocular Exposure

Pesticides come in contact with the eyes.

- Getting pesticides in your eyes by splashing or spraying them.
- Using pesticides in windy conditions
- without wearing eye protection.
- Using contaminated gloves or hands to rub your eyes.
- Without eye protection, pouring dust, grains, or powder compositions.



Storage Procedures



"Store chemicals dry & high."

- If possible, keep pesticides in a locked cabinet in a well-ventilated utility area or garden shed.
- Never store pesticides in cabinets with or near food, animal feed, or medical supplies.
- Store flammable liquids outside your living area and far away from an ignition source such as a furnace, car, grill, or lawnmower.
- Do not store pesticides in places where flooding is possible or where they might spill or leak into wells, drains, groundwater, or surface water.



Storage Procedures



"Stay safe & don't replace."

- Always store pesticides in their original containers with the label, which lists directions for use, ingredients, and first aid steps in case of accidental poisoning.
- Never transfer pesticides to soft drink bottles or other containers. **Children or others may mistake them for something to eat or drink.**
- Use child-resistant packaging correctly. Child resistant does not mean child-proof, so close the container tightly and keep it out



Symptoms of Exposure



Early symptoms:

- headache
- nausea
- dizziness
- increased secretions
 - sweating, salivation, tearing and respiratory secretions.



Symptoms of Exposure



Progressive symptoms:

- muscle twitching
- weakness
- tremor
- incoordination
- vomiting
- abdominal cramps
- diarrhea



Reducing Exposure



"Protect & Prevent with PPE!"

- Put on the appropriate personal protective equipment.
- If you begin to inhale pesticide spray or dust, get out of the area as soon as possible and into fresh air.
- Make use of a sealed handling mechanism.
- Personal protective equipment should be maintained and cleaned on a regular basis.
- To reduce dermal exposure, wash exposed body areas frequently.
- Read the pesticide labels carefully.
- Change clothes before entering the vehicle or home.



Before Washing



"Bag & Tag Soiled Clothing"

- Handle dirty clothing with gloves.
- **Throw away clothes soaked with pesticides. Do not try to clean them. Remember that residue may contaminate your washing machine.**
- Leather items cannot be laundered. Discard these items to avoid being exposed every time you wear them.
- Shake clothing outside if you worked with pesticides that are granular, dust, or powders. Check pockets and cuffs for pesticide particles.
- Keep the clothing in a closed plastic bag outside of your home
- until you are ready to wash them. Keep the bag away from pets and children.



During Washing



"Bag & Tag Soiled Clothing"

- Wash clothing as soon as you can.
- **Separate clothing with pesticide residue from the family laundry to avoid contaminating other clothes.**
- Wash only a few items at a time and use the highest water level.
- Use hot water - the hotter the better.
- Use heavy-duty laundry detergent.
- Double rinse or re-wash if needed.
- Laundry additives such as **chlorine bleach or ammonia** **DO NOT help** improve the removal of pesticide residues.



After Washing



"Bag & Tag Soiled Clothing"

- Remove any leftover pesticides from the washer by running an "empty load" through the complete cycle with hot water.
- Line dry, if possible. **Sunlight breaks down many pesticides and it can prevent residues from collecting in the dryer.**
- If you have to use a dryer, run it until the clothes have completely dried.



Bag Check



"Bag & Tag Soiled Clothing"

- Always bring a change of clothes with you to the worksite.
- Wear long sleeves, pants, tall socks, and closed-toe shoes that are not porous.
- Remove contaminated clothing and place it inside the yellow bag.



Safety Guides



| Potential Hazard | Yes | Needs Correction | Date Corrected or Notes |
|---|-----|------------------|-------------------------|
| Are chemicals stored in a room or building which can be secured from children, visitors and livestock? | | | |
| Do chemical containers have the original labels? | | | |
| Are chemicals stored in their original containers and never in food or drink containers? | | | |
| Is smoking prohibited in and around buildings where chemicals are stored and when they are being handled? | | | |
| Is the storage area well ventilated and lighted? | | | |
| Are respirators, rubber gloves, aprons, chemical goggles, coveralls and other chemical protective gear available? | | | |
| Is the Poison Helpline number (1-800-222-1222) posted in a visible place? | | | |



Thank you!



Any questions?

**Additional resources & safety checklists at www.swagcenter.org
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References

1. "Pesticide Exposure." NASD, nasdonline.org/1745/d001726/pesticide-exposure.html.
2. "Safe Use Practices for Pesticides." National Pesticide Information Center, npic.orst.edu/health/safeuse.html.
3. <http://npic.orst.edu/faq/dirtyclothes.html>
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