

CAUT Health and Safety Fact Sheet



Computer Hygiene

ISSUE 18

Staying healthy and safe at work and at home includes awareness of biological hazards, and using effective prevention protocols and programs. While we have been inundated with awareness materials regarding colds, the flu and antibiotic-resistant illnesses, it is also important to be vigilant regarding the inanimate objects we use every day in the course of our work duties.

Almost everyone uses or accesses a computer as well as hand-held devices, such as PDA's, Blackberry's, cell phones, pagers, etc., every day at work. It may be for personal use, or shared in common.

The potential for cross-contamination and resulting illnesses, is always there, even among normally healthy people. That is why, for example, personal protective equipment (PPE) like respirators, are only for the use of one worker, and must be cleaned and stored properly to prevent unintended disease or illness to develop.

The Centre for Disease Control in Atlanta noted that during a Norovirus outbreak in an elementary school in February 2007,¹ "...non-cleaned computer equipment (i.e. keyboards and mice) and person-to-person contact resulted in illness." The CDC recommends that good handwashing practices and thorough environmental disinfection of fomites (inanimate objects that act as a vehicle to transmit disease) with a solution of 1:50 to 1:10 concentration of household bleach in water with vigorous wiping for 10 seconds or more. (Note that the 1:10 concentration is caustic and should only be used on corrosion-resistant surfaces).

As our computers and other electronic devices are often used by others in many workplaces, they are subject to each user's bacteria or viruses, and are a medium for passing them on to others.

As frequent handwashing has become a regular part of our workplace hygiene, so should cleaning your computers and other technological devices. Most of the large computer companies have advice on their websites for why and how to clean your computers and their attachments safely and effectively.

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This fact sheet will focus on keyboards, mice, headsets, and hand-held devices. It will touch briefly on monitors and computer cases, with resources for further information.

“Germs per square inch”

“Germiest Jobs Report”, a study done by Dr. Charles Gerba at the University of Arizona, found that a telephone is contaminated with up to 25,127 germs per square inch, keyboards at 3,295 per square inch, and the mouse at 1,676 per square inch. It also found that surfaces commonly used by teachers – phones and keyboards – had the most bacteria per square inch, nearly ten times more than other professions. The report states that “The amount of bacteria or germs found on each surface is thought to be directly related to item usage and cleaning practices” noting that teachers’ work items are commonly shared between staff and students. The results of this study draw attention to the need for effective and preventative cleaning protocols.

Supplies

- Soft, lint-free clean cloth – for outside of equipment only; do not use to clean any circuitry such as RAM or motherboard.
- Water or rubbing alcohol – other solvents may be bad for computer plastics.
- Cleaning products specifically designed for computer cleaning.
- Small, portable vacuum cleaner (battery-powered only) – for dust,

dirt, hair, and other particles; do not use standard vacuums as they generate static.

- Cotton swabs – do not use cotton balls as they break apart.
- Can of compressed air – ensure that it does NOT contain lubricant.

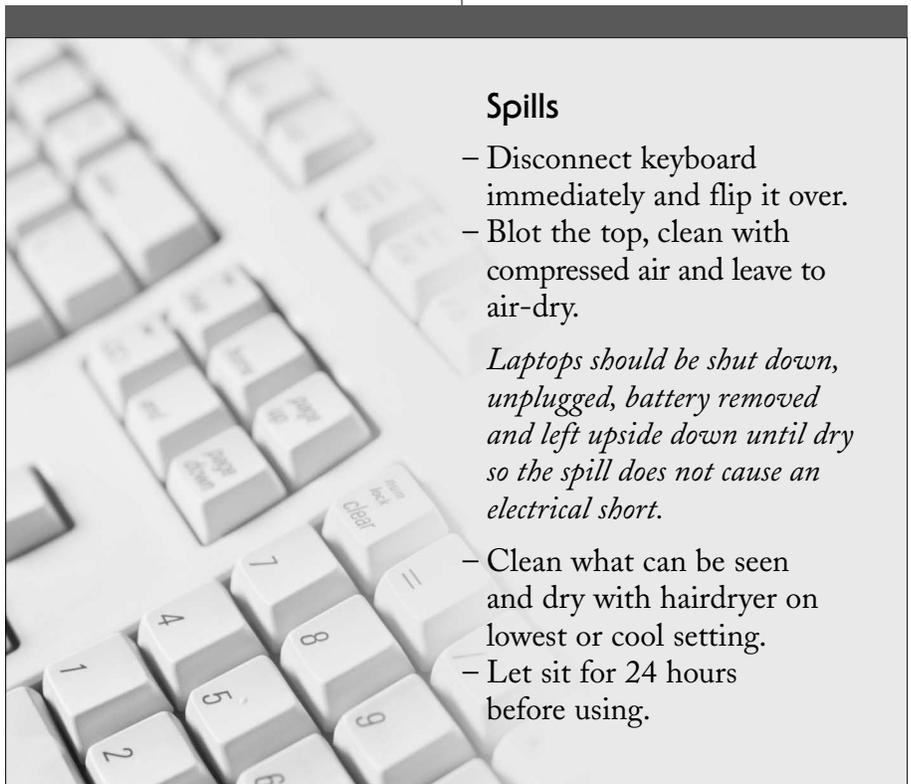
Headsets

- Whether they are dedicated use, or shared, they should be cleaned frequently. Headsets that are shared should have removable ear components that are dedicated for each user. Ear infections are a common ailment for headset users.
- Headsets should be avoided as much as possible, as frequent use can lead to compromised hearing.
- Headsets should be cleaned weekly or as often as needed, with soap and water. Foam

cushions should not be shared, and should be replaced as per the manufacturer’s instructions.

Keyboards

- Clean your keyboard weekly.
- It is recommended that you keep all food and drink away from the keyboard area, not just because of messy spills, but because the crumbs that sit in the keyboards can breed bacteria and fungi, especially if they get wet.
- Turn the keyboard upside down and gently shake out any particles. Using compressed air, blow any remaining particles and dust from in and around the keys. Using a cotton swab dipped in alcohol, or a slightly damp cloth with soap and water, clean the sides and tops of the keys.



Spills

- Disconnect keyboard immediately and flip it over.
- Blot the top, clean with compressed air and leave to air-dry.

Laptops should be shut down, unplugged, battery removed and left upside down until dry so the spill does not cause an electrical short.

- Clean what can be seen and dry with hairdryer on lowest or cool setting.
- Let sit for 24 hours before using.

LCD Screens and Computer Cases

- LCD screens are not made of glass and need to be cleaned differently from CRT monitors. Do not spray anything on them. Use a soft cotton cloth, with a little rubbing alcohol, if needed.
- Only the exterior of the computer case should be cleaned. Use a soft cloth and rubbing alcohol.

Mouse

- Clean your mouse monthly. If there is a ball, remove it.
- Gently blow compressed air into the ball seat.
- Using a clean cloth dipped in alcohol or slightly damp with soap and water, rub the outside surfaces clean.

Phones and hand-held devices

The hazard most associated with these devices is potential hearing impairment – people rarely think of hazards associated with cleanliness. Yet, these are the most used and shared of all work equipment. General cleaning for dust, dirt and stickiness is simple: gentle rubbing with a clean cloth

Protecting IT Staff

Workplace computers and other devices are usually serviced and maintained by on-site or contract IT staff. Direct contact with dirty and contaminated workstations is a particular hazard to them, including the desk, floor and chair.

and water. For a more thorough disinfecting, especially for shared equipment, use rubbing alcohol on a cotton swab. This should be done weekly for single usage and before use each time when shared.

Resources

CAUT IT Department

Centre for Disease Control
www.cdc.gov

ComputerHope.com – Cleaning the computer and its components
www.computerhope.com

DELL – Cleaning Your Computer
www.dell.com

Dr. Charles Gerba, University of Arizona
gerba@ag.arizona.edu

Microsoft – Clean Your Computer
www.microsoft.com

Notes

1 CDC MMWR, January 4, 2008/56(51);1340-1343

