



# LITHIUM-ION BATTERIES - “BATTERY BULGE” AND FIRES

Lithium-ion batteries have the potential to cause fires and endanger human life if not handled properly. I am sure we all remember the news stories from a few years ago in which several popular battery-operated toys caught fire while charging, resulting in major fire losses to homes. But not just toys are powered by lithium-ion batteries. Our laptops, tablets and cellphones also use this type of battery and care must be taken to understand how to charge devices properly and identify when a battery may be faulty. As many school districts have employees who continue to work off-site, as well as students using school issued computers, it is important that end users understand how to recognize potential dangers related to the batteries used to power their devices.

Lithium-ion batteries can swell and produce a gas when they are overheated. This can happen for several reasons:

- Using an incorrect charger for the device. Always use the charger provided with the equipment and/or the manufacturer’s recommended charging device.
- Over-charging the battery by leaving it plugged in all the time.
- Leaving the device in a hot car.
- Inadvertently blocking the vents on the laptop.

Once a battery starts to degrade, gas is released and causes the wrap around the cells to balloon or swell. This expansion of the battery, known as “battery bulge,” can become dangerous and may even start a fire. It is important to understand how to identify “battery bulge.”

- A laptop keyboard could develop a hump or keys may become difficult to press.
- The cellphone, tablet or computer could start to change shape.
- The device may start to separate at seams along edges.
- You may notice that your devices wobble or no longer lay flat when placed on a table or desk.

If you start to notice any of these indicators of “battery bulge,” it is important to notify your IT department immediately so they can advise you how to handle the situation. Never try to repair/replace a battery yourself – servicing is best left to the professionals. Follow battery care and charging guidelines and routinely inspect your devices to identify problems and prevent fires.