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Making Talk Less Toxic

Once limited to a prosperous few, cell phones have rocketed into ubiquity. In 1992, less than 1 percent of people worldwide had cell phones and only one third of all countries had cellular networks. Just 10 years later, 18 percent of people (1.14 billion) had cell phones—more than the number with conventional phone lines—and over 90 percent of countries had networks.

Like computers, cell phones are short-lived products that present the clearest threat to humans and the environment when they are being created or destroyed, as they contain toxics-rich semiconductor chips. The biggest hazards are the phone's chip-containing circuit board, liquid crystal display, and batteries—followed by the hard-to-recycle plastic casing. The research group INFORM estimates that by 2005, consumers will have stockpiled some 500 million used cell phones that are likely to end up in landfills, where they could leach as many as 142 tons of lead.



DID YOU KNOW...?

- * In Africa, mobile phones outnumber fixed lines at a higher ratio than on any other continent. Entrepreneurs selling the use of their cell phones now bring service to villagers who previously had to walk hours to place a call.
- * More Europeans now send and receive short text messages with their mobile phones than use the Internet from personal computers.
- * The Philippines leads the world in text messaging via cell phone. "Txting" by protesters to organize rallies against former President Joseph Estrada was a factor in his recent ouster.
- * In the United States, the world's second largest market for cell phones after China, handsets are cast off on average after 18 months. Competing standards for cellular networks are one reason mobile devices are discarded so quickly in the U.S.; Europe, in contrast, has had a single standard since the early 1980s.
- * Cell phone handsets draw radio waves closer to people's heads than most other electronic gadgets do, causing potential health risks—though long-term data on the link between cell phone use and cancer are not yet available.

FOR MORE INFORMATION

- ☛ **INFORM, Inc.** (www.informinc.org) has published extensive research on the environmental impacts of cell phone disposal as well as trends in phone recycling.
- ☛ The **Silicon Valley Toxics Coalition** (www.svtc.org) offers information on the environmental impacts of cell phones and is campaigning for electronics take-back legislation in the U. S.
- ☛ **ReCellular** (www.recellular.net) buys and sells used phones in bulk in the United States, and provides location information for drop-off centers nationwide.

SUCCESS STORIES

- ❖ In Germany, the Blue Angel "eco-label" is given to phones that meet specific standards for reduced toxic content.
- ❖ Sweden's TCO Development certifies handsets according to their emissions contributions, as well as ergonomic and other environmental criteria—including whether they are easily recyclable.
- ❖ The Finnish phone manufacturer Nokia has been working with university scientists to develop biodegradable plastics and phones that disassemble for easy recycling when triggered by high temperature.
- ❖ Charitable groups in many countries have partnered with companies to refurbish used cell phones. Some of these phones are programmed to dial emergency services and given to victims of domestic violence or the elderly, while others are resold in developing countries.
- ❖ The Netherlands, Norway, Sweden, and Switzerland all have established "extended producer responsibility" programs that require consumers to pay advance disposal fees to fund cell phone recycling.
- ❖ Starting in 2005, the European Union's new Waste Electrical and Electronic Equipment directive will make manufacturers responsible for collecting and recycling new electronics products at the end of their useful lives and require all firms to be collectively responsible for taking back electronics marketed before that date.
- ❖ In the absence of U.S. national laws, the state of Massachusetts has banned electronic waste from landfills and created a fund to recycle electronics. California introduced a limited ban on e-waste and expects local governments to cover recycling costs, while New York recently required vendors to accept and recycle any cell phones they sell.
- ❖ In late 2002, the secretariat of the international Basel Convention on hazardous waste trade convened major electronics manufacturers to launch a new mobile phone working group to work with industry to tackle the waste problems associated with particular products.



CHALLENGE YOURSELF AND OTHERS:

Find out if there are any charities or businesses in your area that collect and recycle used cell phones. Organize a cell phone collection among your friends, family, and colleagues.

SIMPLE THINGS YOU CAN DO:

- ✓ Plug an earpiece into your phone when using it to avoid holding the handset too close to your head.
- ✓ Don't let your kids use cell phones. Due to potential health risks, a study group assembled by the British government has discouraged excessive cell phone use by children.
- ✓ Encourage companies to design less-toxic cell phones, and to "take back" or recycle the phones they sell.
- ✓ If you need to buy a cell phone, look for phones that carry labels indicating that the product meets certain standards for minimal toxic content, low emissions, or easy recyclability.