

limit set by the FCC is 1.6 W/kg. Tests for SAR are conducted using standard operating positions specified by the FCC with the phone transmitting at its highest certified power level in all tested frequency bands. Although SAR is determined at the highest certified power level, the actual SAR level of the phone while operating can be well below the maximum value. Because the phone is designed to operate at multiple power levels to use only the power required to reach the network, in general, the closer you are to a wireless base station antenna, the lower the power output.

Before a phone model is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the limit established by the government-adopted requirement for safe exposure. The tests are performed in positions and locations (e.g., at the ear and worn on the body) as required by the FCC for each model.

The highest SAR value for this model phone when tested for use at the ear is 0.56 W/kg and when worn on the body, as described in this user guide, is 0.99 W/kg (body-worn measurements differ among phone models, depending upon available accessories and FCC requirements). While there may be differences between SAR levels of various phones and at various positions, they all meet the government requirement for safe exposure.

The FCC has granted an Equipment Authorization for this model phone with all reported SAR levels evaluated as in compliance with the FCC RF emission guidelines. SAR information on this model phone is on file with the FCC and can be found under the Display Grant section of <http://www.fcc.gov/oet/fccid> after searching on FCC ID ZNFVS985. Additional information on Specific Absorption Rates (SAR) can be found on the Cellular Telecommunications Industry Association (CTIA) website at <http://www.ctia.org/>.

* In the United States and Canada, the SAR limit for mobile phones used by the public is 1.6 watts/kg (W/kg) averaged over one gram of tissue. The standard incorporates a substantial margin of safety to give additional protection for the public and to account for any variations in measurements.

FCC Hearing-Aid Compatibility (HAC) Regulations for Wireless Devices

On July 10, 2003, the U.S. Federal Communications Commission (FCC) Report and Order in WT Docket 01-309 modified the exception of wireless phones under the Hearing Aid Compatibility Act of 1988 (HAC Act) to require digital wireless phones be compatible with hearing-aids. The intent of the HAC Act is to ensure reasonable access to telecommunications services for persons with hearing disabilities.

While some wireless phones are used near some hearing devices (hearing aids and cochlear implants), users may detect a buzzing, humming, or whining noise. Some hearing devices are more immune than others to this interference noise, and phones also vary in the amount of interference they generate.

The wireless telephone industry has developed a rating system for wireless phones, to assist hearing device users to find phones that may be compatible with their hearing devices. Not all phones have been rated. Phones that are rated have the rating on their box or a label located on the box.

The ratings are not guarantees. Results will vary depending on the user's hearing device and hearing loss. If your hearing device happens to be vulnerable to interference, you may not be able to use a rated phone successfully. Trying out the phone with your hearing device is the best way to evaluate it for your personal needs.

M-Ratings: Phones rated M3 or M4 meet FCC requirements and are likely to generate less interference to hearing devices than phones that are not labeled. M4 is the better/higher of the two ratings.

T-Ratings: Phones rated T3 or T4 meet FCC requirements and are likely to generate less interference to hearing devices than phones that are not labeled. T4 is the better/ higher of the two ratings.

Hearing devices may also be rated. Your hearing device manufacturer or hearing health professional may help you find this rating. Higher ratings mean that the hearing device is relatively immune to interference noise.

The hearing aid and wireless phone rating values are then added together. A sum of 5 is considered acceptable for normal use. A sum of 6 is considered for best use.



In the above example, if a hearing aid meets the M2 level rating and the wireless phone meets the M3 level rating, the sum of the two values equal M5. This should provide the hearing aid user with “normal usage” while using their hearing aid with the particular wireless phone. “Normal usage” in this context is defined as a signal quality that’s acceptable for normal operation.

The M mark is intended to be synonymous with the U mark. The T mark is intended to be synonymous with the UT mark. The M and T marks are recommended by the Alliance for Telecommunications Industries Solutions (ATIS). The U and UT marks are referenced in Section 20.19 of the FCC Rules. The HAC rating and measurement procedure are described in the American National Standards Institute (ANSI) C63.19 standard.

When you're talking over the cell phone, it's recommended you'd turn the BT (Bluetooth) mode off for HAC.

This phone has been tested and rated for use with hearing aids for some of the wireless technologies that it uses. However, there may be some newer wireless technologies used in this phone that have not been tested yet for use with hearing aids. It is important to try the different features of this phone thoroughly and in different locations, using your hearing aid or cochlear implant, to determine if you hear any interfering noise. Consult your service provider or the manufacturer of this phone for information on hearing aid compatibility. If you have questions about return or exchange policies, consult your service provider or phone retailer.

For information about hearing aids and digital wireless phones

Wireless Phones and Hearing Aid Accessibility

<http://www.accesswireless.org/hearingaid/>

FCC Hearing Aid Compatibility and Volume Control

http://www.fcc.gov/cgb/consumerfacts/hac_wireless.html

Caution:

Avoid potential hearing loss.

Prolonged exposure to loud sounds (including music) is the most common cause of preventable hearing loss. Some scientific research suggests that using portable audio devices, such as portable music players and cellular telephones, at high volume settings for long durations may lead to permanent noise-induced hearing loss. This includes the use of headphones (including headsets, earbuds and Bluetooth® or other wireless devices). Exposure to very loud sound has also been associated in some studies with tinnitus (a ringing in the ear), hypersensitivity to sound and distorted hearing. Individual susceptibility to noise-induced hearing loss and other potential hearing problems varies.

The amount of sound produced by a portable audio device varies depending on the nature of the sound, the device, the device settings and the headphones. You should follow some commonsense recommendations when using any portable audio device:

- Set the volume in a quiet environment and select the lowest volume at which you can hear adequately.
- When using headphones, turn the volume down if you cannot hear the people speaking near you or if the person sitting next to you can hear what you are listening to.
- Do not turn the volume up to block out noisy surroundings. If you choose to listen to your portable device in a noisy environment, use noise-cancelling headphones to block out background environmental noise.

- Limit the amount of time you listen. As the volume increases, less time is required before your hearing could be affected.
- Avoid using headphones after exposure to extremely loud noises, such as concerts, that might cause temporary hearing loss. Temporary hearing loss might cause unsafe volumes to sound normal.
- Do not listen at any volume that causes you discomfort. If you experience ringing in your ears, hear muffled speech or experience any temporary hearing difficulty after listening to your portable audio device, discontinue use and consult your doctor.

TIA Safety Information

The following is the complete TIA Safety Information for wireless handheld phones.

Exposure to Radio Frequency Signal

Your wireless handheld portable phone is a low power radio transmitter and receiver. When ON, it receives and sends out Radio Frequency (RF) signals.

In August, 1996, the Federal Communications Commissions (FCC) adopted RF exposure guidelines with safety levels for handheld wireless phones.

Those guidelines are consistent with the safety standards previously set by both U.S. and international standards bodies:

ANSI C95.1 (1992) *

NCRP Report 86 (1986)

ICNIRP (1996)

* American National Standards Institute; National Council on Radiation Protection and Measurements; International Commission on Non-Ionizing Radiation Protection

Those standards were based on comprehensive and periodic evaluations of the relevant scientific literature. For example, over 120 scientists, engineers, and physicians from universities, government health agencies, and industry reviewed the available body of research to develop the ANSI Standard (C95.1).

The design of your phone complies with the FCC guidelines (and those standards).

Antenna Care

Use only the supplied or an approved replacement antenna. Unauthorized antennas, modifications, or attachments could damage the phone and may violate FCC regulations.

Phone Operation

NORMAL POSITION: Hold the phone as you would any other telephone with the antenna pointed up and over your shoulder.

Tips on Efficient Operation

For your phone to operate most efficiently:

Don't touch the antenna unnecessarily when the phone is in use. Contact with the antenna affects call quality and may cause the phone to operate at a higher power level than otherwise needed.

Electronic Devices

Most modern electronic equipment is shielded from RF signals. However, certain electronic equipment may not be shielded against the RF signals from your wireless phone.

Pacemakers

The Health Industry Manufacturers Association recommends that a minimum separation of six (6) inches be maintained between a handheld wireless phone and a pacemaker to avoid potential interference with the pacemaker. These recommendations are consistent with the independent research by and recommendations of Wireless Technology Research.

Persons with pacemakers:

- Should ALWAYS keep the phone more than six (6) inches from their pacemaker when the phone is turned ON;
- Should not carry the phone in a breast pocket;
- Should use the ear opposite the pacemaker to minimize the potential for interference;

- Should turn the phone OFF immediately if there is any reason to suspect that interference is taking place.

Hearing Aids

Some digital wireless phones may interfere with some hearing aids. In the event of such interference, you may want to consult your service provider (or call the customer service line to discuss alternatives).

Other Medical Devices

If you use any other personal medical device, consult the manufacturer of your device to determine if it is adequately shielded from external RF energy. Your physician may be able to assist you in obtaining this information.

Health Care Facilities

Turn your phone OFF in health care facilities when any regulations posted in these areas instruct you to do so. Hospitals or health care facilities may use equipment that could be sensitive to external RF energy.

Vehicles

RF signals may affect improperly installed or inadequately shielded electronic systems in motor vehicles. Check with the manufacturer or its representative regarding your vehicle. You should also consult the manufacturer of any equipment that has been added to your vehicle.

Posted Facilities

Turn your phone OFF in any facility where posted notices so require.

Aircraft

FCC regulations prohibit using your phone while in the air. Switch OFF your phone before boarding an aircraft.

Blasting Areas

To avoid interfering with blasting operations, turn your phone OFF when in a “blasting area” or in areas posted: “Turn off two-way radio”. Obey all signs and instructions.

Potentially Explosive Atmosphere

Turn your phone OFF when in any area with a potentially explosive atmosphere and obey all signs and instructions. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death.

Areas with a potentially explosive atmosphere are often, but not always marked clearly. Potential areas may include: fueling areas (such as gasoline stations); below deck on boats; fuel or chemical transfer or storage facilities; vehicles using liquefied petroleum gas (such as propane or butane); areas where the air contains chemicals or particles (such as grain, dust, or metal powders); and any other area where you would normally be advised to turn off your vehicle engine.

For Vehicles Equipped with an Air Bag

An air bag inflates with great force. DO NOT place objects, including either installed or portable wireless equipment, in the area over the air bag or in the air bag deployment area. If in-vehicle wireless equipment is improperly installed and the air bag inflates, serious injury could result.

Safety Information

Please read and observe the following information for safe and proper use of your phone and to prevent damage.

Caution

Violation of the instructions may cause minor or serious damage to the product.

- Do not disassemble or open crush, bend or deform, puncture or shred.
- Do not modify or remanufacture, attempt to insert foreign objects into the battery, immerse or expose to water or other liquids, expose to fire, explosion or other hazard. Such conditions may present the risk of fire or explosion.
- Only use the battery with a charging system that has been approved and qualified with the system per IEEE-Std-1725-2006. Use of an unqualified

and non-LG-approved battery or charger may present a risk of fire, explosion, leakage, or other hazard.

- Avoid dropping the phone, or exposing the phone to a liquid. If the phone is dropped, especially on a hard surface, or is exposed to a liquid or comes into contact with a sharp object take it to a service center for inspection.
- Improper battery use may result in a fire, explosion or other hazard.

Charger and Adapter Safety

- The charger and adapter are intended for indoor use only.
- Insert the battery charger horizontally into the wall power socket.
- Only use the LG-approved battery charger. Otherwise, you may cause serious damage to your phone.
- Use the correct adapter for your phone when using the battery pack charger abroad.

Battery Information and Care

- Always unplug the charger from the wall socket after the phone is fully charged to save unnecessary power consumption of the charger.
- Please read the manual of the specified charger for the charging method.
- Do not damage the power cord by bending, twisting, or heating. Do not use the plug if it is loose as it may cause electric shock or fire.
- Do not place any heavy items on the power cord. Do not allow the power cord to be crimped as it may cause electric shock or fire.
- Unplug the power cord prior to cleaning your phone, and clean the power plug pin when it's dirty. When using the power plug, ensure that it's firmly connected. If not, it may cause excessive heat or fire. If you put your phone in a pocket or bag without covering the receptacle of the phone (power plug pin), metallic articles (such as a coin, paperclip or pen) may short-circuit the phone. Always cover the receptacle when not in use.

- Recharge the battery after long periods of non-use to maximize battery life. Battery life will vary due to usage pattern and environmental conditions.
- Please use only an approved charging accessory to charge your LG phone. Improper handling of the charging port, as well as the use of an incompatible charger, may cause damage to your phone and void the warranty.
- Never store your phone in temperatures less than -4°F or greater than 122°F.
- The charging temperature range is regulated between 32°F (0°C) and 113°F (45°C). Do not charge the battery outside of the recommended temperature range. Charging outside this range might cause excessive heat generation, serious battery damage, and deterioration of battery's characteristics and cycle life.
- Do not use or leave the phone in direct sunlight or in a car heated by sunshine. The battery may generate excessive heat, smoke, or flame. It also might cause deterioration of battery's characteristics or cycle life.
- The embedded battery pack has a protection circuit to avoid dangerous malfunctions. Do not use your device near places which may generate more than 100V of static electricity because it could damage the protection circuit. If the protection circuit is damaged, the battery could rupture, generate smoke, or catch on fire.
- If skin or clothing is smeared with liquid from the internal battery, wash with fresh water. It may cause the skin inflammation.
- Please take your phone to an authorized service center immediately if this occurs.
- Do not handle the phone with wet hands while it is being charged. It may cause an electric shock or seriously damage your phone.
- The charger and adapter are intended for indoor use only.
- Insert the battery pack charger horizontally into the wall power socket.

- Only use the approved battery charger. Otherwise, you may cause serious damage to your phone due to the risk of overheating, fire, or explosion.
- Use the correct adapter for your phone when using the battery charger abroad.
- Talking on your phone for a long period of time may reduce call quality due to heat generated during use.
- Do not use harsh chemicals (such as alcohol, benzene, thinners, etc.) or detergents to clean your phone. This could cause a fire.
- Do not place or answer calls while charging the phone as it may short-circuit the phone and/or cause electric shock or flame.
- Don't short-circuit the battery. Metallic articles (such as a coin, paperclip, or pen in your pocket or bag) may short-circuit the battery. Short-circuit may damage the battery and cause an explosion.

Explosion, Shock, and Fire Hazards

- Do not put your phone in a place subject to excessive dust and keep the minimum required distance between the power cord and heat sources.
- Unplug the power cord prior to cleaning your phone, and clean the power plug pin when it's dirty.
- When using the power plug, ensure that it's firmly connected. If not, it may cause excessive heat or fire.
- If you put your phone in a pocket or bag without covering the receptacle of the phone (power plug pin), metallic articles (such as a coin, paperclip, or pen) may short-circuit the phone and may cause an explosion. Always cover the receptacle when not in use.

General Notice

- Do not place items containing magnetic components such as a credit card, phone card, bank book, or subway ticket near your phone. The magnetism of the phone may damage the data stored in the magnetic strip.

- Talking on your phone for a long period of time may reduce call quality due to heat generated during use.
- When the phone is not used for a long period time, store it in a safe place with the power cord unplugged.
- Using the phone in proximity to receiving equipment (i.e., TV or radio) may cause interference to the phone.
- Do not use the phone if the antenna is damaged. If a damaged antenna contacts skin, it may cause a slight burn. Please contact an LG Authorized Service Center to replace the damaged antenna.
- Do not immerse your phone in water, liquid, or expose to high humidity. If the phone is expose to liquid, turn it off immediately and bring it to an LG Authorized Service Center.
- Do not paint your phone.
- The data saved in your phone might be deleted due to careless use, repair of the phone, or upgrade of the software. Please backup your important phone numbers. (Ringtones, text messages, voice messages, pictures, and videos could also be deleted.) The manufacturer is not liable for damage due to the loss of data.
- When you use the phone in public places, set the ringtone to vibration so you don't disturb others.
- Do not turn your phone on or off when putting it to your ear.
- Use accessories, such as earphones and headsets, with caution. Ensure that cables are tucked away safely.

FDA Consumer Update



The U.S. Food and Drug Administration's Center for Devices and Radiological Health Consumer Update on Mobile Phones:

1. Do wireless phones pose a health hazard?

The available scientific evidence does not show that any health problems are associated with using wireless phones. There is no proof, however, that

wireless phones are absolutely safe. Wireless phones emit low levels of Radio Frequency (RF) energy in the microwave range while being used. They also emit very low levels of RF when in standby mode. Whereas high levels of RF can produce health effects (by heating tissue), exposure to low level RF that does not produce heating effects causes no known adverse health effects. Many studies of low level RF exposures have not found any biological effects. Some studies have suggested that some biological effects may occur, but such findings have not been confirmed by additional research. In some cases, other researchers have had difficulty in reproducing those studies, or in determining the reasons for inconsistent results.

2. What is the FDA's role concerning the safety of wireless phones?

Under the law, the FDA does not review the safety of radiation-emitting consumer products such as wireless phones before they can be sold, as it does with new drugs or medical devices. However, the agency has authority to take action if wireless phones are shown to emit Radio Frequency (RF) energy at a level that is hazardous to the user. In such a case, the FDA could require the manufacturers of wireless phones to notify users of the health hazard and to repair, replace, or recall the phones so that the hazard no longer exists.

Although the existing scientific data do not justify FDA regulatory actions, the FDA has urged the wireless phone industry to take a number of steps, including the following:

- Support needed research into possible biological effects of RF of the type emitted by wireless phones;
- Design wireless phones in a way that minimizes any RF exposure to the user that is not necessary for device function; and
- Cooperate in providing users of wireless phones with the best possible information on possible effects of wireless phone use on human health.

The FDA belongs to an interagency working group of the federal agencies that have responsibility for different aspects of RF safety to ensure

coordinated efforts at the federal level. The following agencies belong to this working group:

- National Institute for Occupational Safety and Health
- Environmental Protection Agency
- Occupational Safety and Health Administration
- National Telecommunications and Information Administration

The National Institutes of Health participates in some interagency working group activities, as well.

The FDA shares regulatory responsibilities for wireless phones with the Federal Communications Commission (FCC). All phones that are sold in the United States must comply with FCC safety guidelines that limit RF exposure. The FCC relies on the FDA and other health agencies for safety questions about wireless phones.

The FCC also regulates the base stations that the wireless phone networks rely upon. While these base stations operate at higher power than do the wireless phones themselves, the RF exposures that people get from these base stations are typically thousands of times lower than those they can get from wireless phones. Base stations are thus not the subject of the safety questions discussed in this document.

3. What kinds of phones are the subject of this update?

The term “wireless phone” refers here to handheld wireless phones with built-in antennas, often called “cell”, “mobile”, or “PCS” phones. These types of wireless phones can expose the user to measurable Radio Frequency (RF) energy because of the short distance between the phone and the user’s head.

These RF exposures are limited by FCC safety guidelines that were developed with the advice of the FDA and other federal health and safety agencies. When the phone is located at greater distances from the user, the exposure to RF is drastically lower because a person’s RF exposure decreases rapidly with increasing distance from the source. The so-called “cordless phones,” which have a base unit connected to the telephone

wiring in a house, typically operate at far lower power levels, and thus produce RF exposures far below the FCC safety limits.

4. What are the results of the research done already?

The research done thus far has produced conflicting results, and many studies have suffered from flaws in their research methods. Animal experiments investigating the effects of Radio Frequency (RF) energy exposures characteristic of wireless phones have yielded conflicting results that often cannot be repeated in other laboratories. A few animal studies, however, have suggested that low levels of RF could accelerate the development of cancer in laboratory animals. However, many of the studies that showed increased tumor development used animals that had been genetically engineered or treated with cancer-causing chemicals so as to be pre-disposed to develop cancer in the absence of RF exposure. Other studies exposed the animals to RF for up to 22 hours per day. These conditions are not similar to the conditions under which people use wireless phones, so we do not know with certainty what the results of such studies mean for human health. Three large epidemiology studies have been published since December 2000. Between them, the studies investigated any possible association between the use of wireless phones and primary brain cancer, glioma, meningioma, or acoustic neuroma, tumors of the brain or salivary gland, leukemia, or other cancers. None of the studies demonstrated the existence of any harmful health effects from wireless phone RF exposures. However, none of the studies can answer questions about long-term exposures, since the average period of phone use in these studies was around three years.

5. What research is needed to decide whether RF exposure from wireless phones poses a health risk?

A combination of laboratory studies and epidemiological studies of people actually using wireless phones would provide some of the data that are needed. Lifetime animal exposure studies could be completed in a few years. However, very large numbers of animals would be needed to provide reliable proof of a cancer promoting effect if one exists. Epidemiological studies can provide data that is directly applicable to human populations, but ten or more years follow-up may be needed to provide answers about

some health effects, such as cancer. This is because the interval between the time of exposure to a cancer-causing agent and the time tumors develop — if they do — may be many, many years. The interpretation of epidemiological studies is hampered by difficulties in measuring actual RF exposure during day-to-day use of wireless phones. Many factors affect this measurement, such as the angle at which the phone is held, or which model of phone is used.

6. What is the FDA doing to find out more about the possible health effects of wireless phone RF?

The FDA is working with the U.S. National Toxicology Program and with groups of investigators around the world to ensure that high priority animal studies are conducted to address important questions about the effects of exposure to Radio Frequency (RF) energy.

The FDA has been a leading participant in the World Health Organization International Electro Magnetic Fields (EMF) Project since its inception in 1996. An influential result of this work has been the development of a detailed agenda of research needs that has driven the establishment of new research programs around the world. The project has also helped develop a series of public information documents on EMF issues.

The FDA and the Cellular Telecommunications & Internet Association (CTIA) have a formal Cooperative Research And Development Agreement (CRADA) to do research on wireless phone safety. The FDA provides the scientific oversight, obtaining input from experts in government, industry, and academic organizations. CTIA-funded research is conducted through contracts with independent investigators. The initial research will include both laboratory studies and studies of wireless phone users. The CRADA will also include a broad assessment of additional research needs in the context of the latest research developments around the world.

7. How can I find out how much Radio Frequency energy exposure I can get by using my wireless phone?

All phones sold in the United States must comply with Federal Communications Commission (FCC) guidelines that limit Radio Frequency (RF) energy exposures. The FCC established these guidelines in

consultation with the FDA and the other federal health and safety agencies. The FCC limit for RF exposure from wireless phones is set at a Specific Absorption Rate (SAR) of 1.6 watts per kilogram (1.6 W/kg). The FCC limit is consistent with the safety standards developed by the Institute of Electrical and Electronic Engineering (IEEE) and the National Council on Radiation Protection and Measurement. The exposure limit takes into consideration the body's ability to remove heat from the tissues that absorb energy from the wireless phone and is set well below levels known to have effects. Manufacturers of wireless phones must report the RF exposure level for each model of phone to the FCC. The FCC website (<http://www.fcc.gov/oet/rfsafety>) gives directions for locating the FCC identification number on your phone so you can find your phone's RF exposure level in the online listing.

8. What has the FDA done to measure the Radio Frequency energy coming from wireless phones?

The Institute of Electrical and Electronic Engineers (IEEE) is developing a technical standard for measuring the Radio Frequency (RF) energy exposure from wireless phones and other wireless handsets with the participation and leadership of FDA scientists and engineers. The standard, "Recommended Practice for Determining the Spatial-Peak Specific Absorption Rate (SAR) in the Human Body Due to Wireless Communications Devices: Experimental Techniques", sets forth the first consistent test methodology for measuring the rate at which RF is deposited in the heads of wireless phone users. The test method uses a tissue-simulating model of the human head. Standardized SAR test methodology is expected to greatly improve the consistency of measurements made at different laboratories on the same phone. SAR is the measurement of the amount of energy absorbed in tissue, either by the whole body or a small part of the body. It is measured in watts/kg (or milliwatts/g) of matter. This measurement is used to determine whether a wireless phone complies with safety guidelines.

9. What steps can I take to reduce my exposure to Radio Frequency energy from my wireless phone?

If there is a risk from these products — and at this point we do not know that there is — it is probably very small. But if you are concerned about avoiding even potential risks, you can take a few simple steps to minimize your exposure to Radio Frequency (RF) energy. Since time is a key factor in how much exposure a person receives, reducing the amount of time spent using a wireless phone will reduce RF exposure. If you must conduct extended conversations by wireless phone every day, you could place more distance between your body and the source of the RF, since the exposure level drops off dramatically with distance. For example, you could use a headset and carry the wireless phone away from your body or use a wireless phone connected to a remote antenna. Again, the scientific data does not demonstrate that wireless phones are harmful. But if you are concerned about the RF exposure from these products, you can use measures like those described above to reduce your RF exposure from wireless phone use.

10. What about children using wireless phones?

The scientific evidence does not show a danger to users of wireless phones, including children and teenagers. If you want to take steps to lower exposure to Radio Frequency (RF) energy, the measures described above would apply to children and teenagers using wireless phones. Reducing the time of wireless phone use and increasing the distance between the user and the RF source will reduce RF exposure.

Some groups sponsored by other national governments have advised that children be discouraged from using wireless phones at all. For example, the government in the United Kingdom distributed leaflets containing such a recommendation in December 2000. They noted that no evidence exists that using a wireless phone causes brain tumors or other ill effects. Their recommendation to limit wireless phone use by children was strictly precautionary; it was not based on scientific evidence that any health hazard exists.

11. What about wireless phone interference with medical equipment?

Radio Frequency (RF) energy from wireless phones can interact with some electronic devices. For this reason, the FDA helped develop a detailed test method to measure Electro Magnetic Interference (EMI) of implanted cardiac pacemakers and defibrillators from wireless telephones. This test method is now part of a standard sponsored by the Association for the Advancement of Medical Instrumentation (AAMI). The final draft, a joint effort by the FDA, medical device manufacturers, and many other groups, was completed in late 2000. This standard will allow manufacturers to ensure that cardiac pacemakers and defibrillators are safe from wireless phone EMI.

The FDA has tested hearing aids for interference from handheld wireless phones and helped develop a voluntary standard sponsored by the Institute of Electrical and Electronic Engineers (IEEE). This standard specifies test methods and performance requirements for hearing aids and wireless phones so that no interference occurs when a person uses a “compatible” phone and a “compatible” hearing aid at the same time. This standard was approved by the IEEE in 2000.

The FDA continues to monitor the use of wireless phones for possible interactions with other medical devices. Should harmful interference be found to occur, the FDA will conduct testing to assess the interference and work to resolve the problem.

12. Where can I find additional information?

For additional information, please refer to the following resources:

FDA web page on wireless phones
(<http://www.fda.gov/cellphones/>)

Federal Communications Commission (FCC) RF Safety Program
(<http://www.fcc.gov/oet/rfsafety>)

International Commission on Non-Ionizing Radiation Protection
(<http://www.icnirp.de>)

World Health Organization (WHO) International EMF Project
(<http://www.who.int/emf>)

National Radiological Protection Board (UK)
(<http://www.hpa.org.uk/radiation/>)

Driving

Check the laws and regulations on the use of wireless phones in the areas where you drive and always obey them. Also, if using your phone while driving, please observe the following:

- Give full attention to driving – driving safely is your first responsibility;
- Use hands-free operation, if available;
- Pull off the road and park before making or answering a call if driving conditions or the law require it.

10 Driver Safety Tips

Your wireless phone gives you the powerful ability to communicate by voice almost anywhere, anytime. An important responsibility accompanies the benefits of wireless phones, one that every user must uphold.

When operating a car, driving is your first responsibility. When using your wireless phone behind the wheel of a car, practice good common sense and remember the following tips:

1. Get to know your wireless phone and its features such as speed dial and redial. Carefully read your instruction manual and learn to take advantage of valuable features most phones offer, including automatic redial and memory. Also, work to memorize the phone keypad so you can use the speed dial function without taking your attention off the road.
2. When available, use a hands-free device. A number of hands-free wireless phone accessories are readily available today. Whether you choose an installed mounted device for your wireless phone or a speaker phone accessory, take advantage of these devices if available to you.
3. Make sure you place your wireless phone within easy reach and where you can reach it without removing your eyes from the road. If you get an incoming call at an inconvenient time, if possible, let your voicemail answer it for you.

4. Suspend conversations during hazardous driving conditions or situations. Let the person you are speaking with know you are driving; if necessary, suspend the call in heavy traffic or hazardous weather conditions. Rain, sleet, snow, and ice can be hazardous, but so is heavy traffic. As a driver, your first responsibility is to pay attention to the road.
5. Don't take notes or look up phone numbers while driving. If you are reading an address book or business card, or writing a "to-do" list while driving a car, you are not watching where you are going. It is common sense. Do not get caught in a dangerous situation because you are reading or writing and not paying attention to the road or nearby vehicles.
6. Dial sensibly and assess the traffic; if possible, place calls when you are not moving or before pulling into traffic. Try to plan your calls before you begin your trip or attempt to coincide your calls with times you may be stopped at a stop sign, red light, or otherwise stationary. But if you need to dial while driving, follow this simple tip – dial only a few numbers, check the road and your mirrors, then continue.
7. Do not engage in stressful or emotional conversations that may be distracting. Stressful or emotional conversations and driving do not mix; they are distracting and even dangerous when you are behind the wheel of a car. Make people you are talking with aware you are driving and if necessary, suspend conversations which have the potential to divert your attention from the road.
8. Use your wireless phone to call for help. Your wireless phone is one of the greatest tools you can own to protect yourself and your family in dangerous situations – with your phone at your side, help is only three numbers away. Dial 911 or other local emergency number in the case of fire, traffic accident, road hazard, or medical emergency. Remember, it's a free call on your wireless phone!
9. Use your wireless phone to help others in emergencies. Your wireless phone provides you a perfect opportunity to be a "Good Samaritan" in your community. If you see an auto accident, crime in progress or other serious emergency where lives are in danger, call 911 or other local emergency number, as you would want others to do for you.

10. Call roadside assistance or a special wireless non-emergency assistance number when necessary. Certain situations you encounter while driving may require attention, but are not urgent enough to merit a call for emergency services. But you can still use your wireless phone to lend a hand. If you see a broken-down vehicle posing no serious hazard, a broken traffic signal, a minor traffic accident where no one appears injured or a vehicle you know to be stolen, call roadside assistance or other special non-emergency wireless number.

The above tips are meant as general guidelines. Before deciding to use your mobile device while operating a vehicle, it is recommended that you consult your applicable jurisdiction's local laws or other regulations regarding such use. Such laws or other regulations may prohibit or otherwise restrict the manner in which a driver may use his or her phone while operating a vehicle.

Cautions

- ▶ The user interface of Google applications (Google Search, Google Maps, Navigation, etc.) can vary depending on its software version.
- ▶ Locations are inaccurate when GPS and Wi-Fi are not set.
- ▶ With the Android operating system, some available Play Store applications only operate correctly with phones that have a specific screen resolution.

Please be advised that some of the applications on the Play Store may not be available for your phone due to LCD resolution requirement that does not match your phone. In addition, please be aware that third party applications with programming defects may cause issues with your phone, including lock ups and resets.

- ▶ All of the contents, including content which you create or download, will be deleted after a factory reset.

DivX Mobile

ABOUT DIVX VIDEO: DivX® is a digital video format created by DivX, LLC, a subsidiary of Rovi Corporation. This is an official DivX Certified® device that has passed rigorous testing to verify that it plays DivX video. Visit divx.com for more information and software tools to convert your files into DivX videos.

ABOUT DIVX VIDEO-ON-DEMAND: This DivX Certified® device must be registered in order to play purchased DivX Video-on-Demand (VOD) movies. To obtain your registration code, locate the DivX VOD section in your device setup menu. Go to vod.divx.com for more information on how to complete your registration.

DivX Certified® to play DivX® video up to HD 720p, including premium content. DivX®, DivX Certified® and associated logos are trademarks of Rovi Corporation or its subsidiaries and are used under license.

Dolby Digital Plus License notice



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Please check to see if any problems you have encountered with your phone are described in this section, before taking the phone in for service or calling a service representative.

CATEGORY	SUB-CATEGORY	QUESTION	ANSWER
Bluetooth	Bluetooth Devices	What are the functions available via Bluetooth?	Stereo/Mono Headset, Car Kit, and FTP connections are available. When your phone connected to another phone via Bluetooth, you can receive Contacts data.
Bluetooth	Bluetooth Headset	If my Bluetooth headset is connected, can I listen to my music through my 3.5mm wired headphones?	When a Bluetooth headset is connected, all system sounds are played over the headset. As a result, you will not be able to listen to music through your wired headphones.
Data	Contacts Backup	How can I back up Contacts?	The Contacts data can be synchronized between your phone and Gmail™.
Data	Synchronization	Is it possible to set up one-way-sync with Gmail?	Only two-way synchronization is available.
Data	Synchronization	Is it possible to synchronize all of the Email folders?	All of your Email folders are synchronized. Tap the Menu Key  (in the Front Touch Keys bar), then tap Folders to view them.
Data	Synchronization	Is it possible to transfer Contacts data from a feature phone to an Android™ phone?	Yes, if your contacts can be extracted into a .CSV file. How to transfer: 1. Create “.CSV” file with the contacts on your current phone (you may be able to use the PC suite software provided by LGE). 2. Log into Gmail with your PC. 3. Click Contacts . 4. Click Import . 5. Attach the “.CSV” file. 6. Your contacts will then be synchronized between your Android phone and Gmail.
Google™ Service	Gmail Log-In	Should I have to log into Gmail whenever I want to access Gmail?	Once you log into Gmail, you don't need to log into Gmail again.

CATEGORY	SUB-CATEGORY	QUESTION	ANSWER
Google Service	Google Account	Is it possible to filter emails?	No, email filtering is not supported via the phone.
Phone Function	YouTube™	Is it possible to play YouTube videos?	Yes, YouTube videos are supported but may have to be viewed through the YouTube application (instead of the Chrome application).
Phone Function	Email	What happens when I access another application while writing an email?	Your email is automatically saved as a draft when you access another application. It is still displayed when you return to Email, until you close the Email application. When you open the Email application again, from your Inbox, tap the Menu Key  (in the Front Touch Keys bar), then Folders > Drafts to access it.
Phone Function	Ringtone	Is there a file size limitation for when I want to use an .MP3 file as a ringtone?	There is no file size limitation.
Phone Function	Navigation	Is it possible to install another navigation application on my phone?	Any application that is available on Play Store and is compatible with the hardware can be installed and used.
Phone Function	Synchronization	Is it possible to synchronize my contacts from all of my email accounts?	Only Gmail and MS Exchange server (Company Email Server) contacts can be synchronized.
Phone Function	Wait and Pause	Why don't my phone numbers with Wait and Pause work?	If you transferred a contact with the Wait and Pause functions saved into the number, you will need to re-save each number to use these features. To re-save numbers with Wait and Pause 1. From the Home screen, tap the Phone Key  in the Quick Keys bar. 2. Dial the number, then tap the Menu Key  (in the Front Touch Keys bar). 3. Tap Add 2-sec pause or Add wait, enter the remaining numbers, then tap Save to Contacts to save the number for the Contact.

CATEGORY	SUB-CATEGORY	QUESTION	ANSWER
Phone Function	Security	What are the phone's security functions?	You are able to set the phone to require the entry of an unlock sequence (face recognition, pattern, PIN, or password) before the phone can be accessed or used.
Phone Function	Unlock Pattern	What should I do if I forget my Unlock Pattern?	After attempting the Unlock Pattern 5 times, you can tap the Forgot Pattern? option and use your Google Account information or Backup PIN to unlock your phone.
Phone Function	Unlock Pattern	How do I create the Unlock Pattern?	1. From the Home screen, tap the Menu Key  (in the Front Touch Keys bar). 2. Tap Lock screen settings. 3. Tap Select screen lock. 4. Tap Pattern. The first time you do this, a short tutorial about creating an unlock pattern appears. 5. Set up by drawing your pattern once, tap Continue, draw it again, then tap Confirm.
Phone Function	Speed Dial	Is Speed Dialing supported?	Yes. You can set Speed Dials as well as save a contact directly on your Home screen. To set a Speed Dial: 1. Open the Contacts application. 2. Tap the Menu Key  (in the Front Touch Keys bar) > Speed dial. 3. Tap the speed dial location and select the desired contact. To set a Direct Dial shortcut to your Home screen: 1. Touch and hold an empty area on your Home screen. 2. Tap the Widgets tab > Direct dial. 3. Tap the contact in your Contacts list.
Phone Function	Memory	Will I know when my memory is full?	Yes, you will receive a notification.

CATEGORY	SUB-CATEGORY	QUESTION	ANSWER
Phone Function	Language Support	Is it possible to change the language?	The phone has multi-lingual capabilities. To change the language: 1. From the Home screen, tap the Menu Key  (in the Front Touch Keys bar) > Settings. 2. Tap Language & input > Language. 3. Tap the desired language. NOTE To set multiple languages for your on-screen keyboard, from the Language & input screen, tap the Settings icon  (next to LG Keyboard), tap Input language and type, then checkmark the languages you want to be able to type.
Phone Function	Language Support	Which languages are supported when using Play Store?	The Play Store application supports English and Spanish. Third party applications may not support all languages.
Phone Function	VPN	How do I set up a VPN?	VPN access configuration is different according to each company. To configure VPN access from your phone, you must obtain the details from your company's network administrator.
Phone Function	Screen time out	My screen turns off after only 30 seconds. How can I change the amount of time for the backlight to turn off?	1. From the Home screen, tap the Menu Key  (in the Front Touch Keys bar). 2. Tap Settings > Display > Screen timeout. 3. Tap the preferred screen backlight timeout time. NOTE You can also turn on the Smart screen and Smart video features to keep the screen from turning off when the device detects your eyes looking at the screen. From the Settings menu, tap Display, then checkmark Smart screen and/or Smart video.

CATEGORY	SUB-CATEGORY	QUESTION	ANSWER
Phone Function	Wi-Fi and 4G	When Wi-Fi and 4G are both available, which service will my phone use?	When using data, your phone may default to the Wi-Fi connection (if Wi-Fi connectivity on your phone is set to On). However, there will be no notification when your phone switches from one to the other. To know which data connection is being used, use the 4G  or Wi-Fi icon  in the Status Bar at the top of your screen.
Phone Function	Home screen	Is it possible to remove an application from the Home screen?	Yes. Just touch and hold the icon until the Remove bar appears at the top of the screen. Then, without lifting your finger, drag the icon to the Remove bar, then lift your finger.
Phone Function	Application	I downloaded an application and it causes a lot of errors. How do I remove it?	1. From the Home screen, tap the Menu Key  (in the Front Touch Keys bar). 2. Tap Settings > Application manager. 3. Tap the application > Uninstall.
Phone Function	Ringtones	Can I use music files for my ringtones?	Yes. After saving a music file as a ringtone, you can use it anywhere you can set ringtones as an alert. Touch and hold a song in a library list. In the Context menu that opens, tap Set music as.
Phone Function	Alarm	Will my alarm be audible or will it go off if the phone is turned off?	No, this is not supported.
Phone Function	Alarm	If my Ringer Volume is set to Off or Vibrate , will I hear my alarm?	Your alarm is programmed to be audible even in these scenarios.

CATEGORY	SUB-CATEGORY	QUESTION	ANSWER
Phone Spec	Battery Time	What is the maximum amount of time my phone's battery will last before I need to recharge it?	Talk time: Approx. 1150 mins Standby: Approx. 11.5 days
	Band	Which wireless bands are supported by the phone?	Your phone is able to operate on the 800MHz, 1900MHz.
Recovery Solution	Factory Reset	How can I perform a factory reset if I can't access the phone's Settings menu?	How to perform a factory reset: 1. Turn the phone off. 2. Press and hold the following keys at the same time: Volume Down Key  + Power/Lock Key  on the back of the phone. 3. Release the Power/Lock Key  only when the LG logo is displayed, then immediately press and hold the Power/Lock Key  again. 4. Release all keys when the Factory hard reset screen is displayed. 5. Press the Power/Lock Key  to continue or either of the Volume Keys   to cancel. 6. Press the Power/Lock Key  once more to confirm or either of the Volume Keys   to cancel. Attention: If a factory reset is performed, all installed applications and user data will be erased. Please remember to back up any important data before performing a factory reset.
	Power Reset	Phone is locked-up and does not function	In the case of a malfunction or lock up error, press and hold the Power/Lock Key  for 8 seconds to reset the phone. To power off, press and hold the Power/Lock Key  2 seconds longer.

1. WHAT THIS WARRANTY COVERS:

LG offers you a limited warranty that the enclosed subscriber unit and its enclosed accessories will be free from defects in material and workmanship, according to the following terms and conditions:

- (1) The limited warranty for the product extends for TWELVE (12) MONTHS beginning on the date of purchase of the product with valid proof of purchase, or absent valid proof of purchase, FIFTEEN (15) MONTHS from date of manufacture as determined by the unit's manufacture date code.
- (2) The limited warranty extends only to the original purchaser of the product and is not assignable or transferable to any subsequent purchaser/end user.
- (3) This warranty is good only to the original purchaser of the product during the warranty period as long as it is in the U.S., including Alaska, Hawaii, U.S. Territories and Canada.
- (4) The external housing and cosmetic parts shall be free of defects at the time of shipment and, therefore, shall not be covered under these limited warranty terms.
- (5) Upon request from LG, the consumer must provide information to reasonably prove the date of purchase.
- (6) The customer shall bear the cost of shipping the product to the Customer Service Department of LG. LG shall bear the cost of shipping the product back to the consumer after the completion of service under this limited warranty.

2. WHAT THIS WARRANTY DOES NOT COVER:

- (1) Defects or damages resulting from use of the product in other than its normal and customary manner.
- (2) Defects or damages from abnormal use, abnormal conditions, improper storage, exposure to moisture or dampness, unauthorized modifications, unauthorized connections, unauthorized repair, misuse, neglect, abuse, accident, alteration, improper installation, or other acts which are not the fault of LG, including damage caused by shipping, blown fuses, spills of food or liquid.
- (3) Breakage or damage to antennas unless caused directly by defects in material or workmanship.
- (4) That the Customer Service Department at LG was not notified by consumer of the alleged defect or malfunction of the product during the applicable limited warranty period.

- (5) Products which have had the serial number removed or made illegible.
- (6) This limited warranty is in lieu of all other warranties, express or implied either in fact or by operations of law, statutory or otherwise, including, but not limited to any implied warranty of marketability or fitness for a particular use.
- (7) Damage resulting from use of non LG approved accessories.
- (8) All plastic surfaces and all other externally exposed parts that are scratched or damaged due to normal customer use.
- (9) Products operated outside published maximum ratings.
- (10) Products used or obtained in a rental program.
- (11) Consumables (such as fuses).

3. WHAT LG WILL DO:

LG will, at its sole option, either repair, replace or refund the purchase price of any unit that does not conform to this limited warranty. LG may choose at its option to use functionally equivalent re-conditioned, refurbished or new units or parts or any units. In addition, LG will not re-install or back-up any data, applications or software that you have added to your phone. It is therefore recommended that you back-up any such data or information prior to sending the unit to LG to avoid the permanent loss of such information.

4. STATE LAW RIGHTS:

No other express warranty is applicable to this product. THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTY OF MARKETABILITY, IS LIMITED TO THE DURATION OF THE EXPRESS WARRANTY HEREIN. LG SHALL NOT BE LIABLE FOR THE LOSS OF THE USE OF THE PRODUCT, INCONVENIENCE, LOSS OR ANY OTHER DAMAGES, DIRECT OR CONSEQUENTIAL, ARISING OUT OF THE USE OF, OR INABILITY TO USE, THIS PRODUCT OR FOR ANY BREACH OF ANY EXPRESS OR IMPLIED WARRANTY, INCLUDING THE IMPLIED WARRANTY OF MARKETABILITY APPLICABLE TO THIS PRODUCT.

Some states do not allow the exclusive limitation of incidental or consequential damages or limitations on how long an implied warranty lasts; so these limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

5. HOW TO GET WARRANTY SERVICE:

If you experience any problems with either the Bluetooth headset or the mobile handset, in each case as may be covered by this limited warranty, you need only return the affected device. For example, if a problem exists with the Bluetooth headset, please DO NOT return your mobile handset with the headset. Likewise, if a problem exists with the mobile handset, please DO NOT return the Bluetooth Headset with the handset.

To obtain warranty service, please call or fax to the following telephone numbers from anywhere in the continental United States:

Tel. 1-800-793-8896 or Fax. 1-800-448-4026

Or visit <http://us.lgservice.com>. Correspondence may also be mailed to:

LG Electronics Service- Mobile Handsets, P.O. Box 240007, Huntsville, AL 35824

DO NOT RETURN YOUR PRODUCT TO THE ABOVE ADDRESS.

Please call or write for the location of the LG authorized service center nearest you and for the procedures for obtaining warranty claims.

7.11 Warranty Laws

The following laws govern warranties that arise in retail sales of consumer goods:

- The California Song-Beverly Consumer Warranty Act [CC §§1790 et seq],
- The California Uniform Commercial Code, Division Two [Com C §§2101 et seq], and
- The federal Magnuson-Moss Warranty Federal Trade Commission Improvement Act [15 USC §§2301 et seq; 16 CFR Parts 701– 703]. A typical Magnuson-Moss Act warranty is a written promise that the product is free of defects or a written promise to refund, repair, or replace defective goods. [See 15 USC §2301(6).] Remedies include damages for failing to honor a written warranty or service contract or for violating disclosure provisions. [See 15 USC §2310(d).] Except for some labeling and disclosure requirements, the federal Act does not preempt state law. [See 15 USC §2311.]

The Consumer Warranty Act does not affect the rights and obligations of parties under the state Uniform Commercial Code, except the provisions of the Act prevail over provisions of the Commercial Code when they conflict. [CC §1790.3.]

For purposes of small claims actions, this course will focus on rights and duties under the state laws.

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