

LG5500 | Quick Reference Guide

Some of content in this user guide may be different from your phone depending on the software of the phone or your service provider. Features and specifications might be subject to change without prior notice.



Bluetooth QD ID B015213

Visit www.koodomobile.com/guides for the User Guide fully illustrated on how to use your phone. Or go to LG website at http://ca.lgservice.com/index_b2c.jsp to browse it.

P/N: MMBB0325001 (1.0)

Getting Started With Your Phone

Installing the Battery

To install, insert the battery into the opening on the back of the phone and gently press down until the latch snaps into place.



Removing the Battery

Turn power off. Slide the battery release latch away from the edge of the battery, then lift the edge of the battery to remove it.

Charging the Battery

NOTICE

▶ 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.

1. Plug the end of the AC adapter into the phone's charger port and the other end into an electrical outlet.
2. The charge time varies depending upon the battery level.



NOTICE

Please make sure that the LG logo faces down before inserting a charger or data cable into the charger port of your phone.

Phone Overview



Turning the Phone On and Off

Turning the Phone On

1. Install a charged battery or connect the phone to an external power source.
2. With the flip open, press (located above the key on the keypad) until the LCD screen lights up.

Turning the Phone Off

With the flip open, press and hold until the display turns off.

Making Calls

1. Make sure the phone is turned on. If not, open the flip and press for about three seconds. If necessary, enter the lock code.
2. Enter the phone number.
3. Press .
4. Press to end the call.

Notes

- ▶ Your phone has a Voice Commands feature that also lets you make calls by saying a phone number, name, or location.

Messaging Menu 3

Voicemail	Allows you to view the number of new voice messages recorded in the Voicemail box. When you have a new voice message, your phone will alert you.
Create Message	Allows you to send text messages, picture messages and pages transmissions. Each message has a destination (up to 10 recipients per message) and information (Message). These are dependent upon the type of message you want to send.
Inbox	Your phone will alert you when you have new messages.
Sent	Up to 100 SMS/ 100 MMS can be stored in Outbox and each sent message will contain verifying information whether it was transmitted successfully or not.
Drafts	Displays draft messages.
Web Alerts	Get alerts from your phone when new Alert has arrived.

Tools Menu 8

Stopwatch	Allows you to use your phone as typical stopwatch. Start measuring time and finish it pressing the OK Key.
World Clock	Allows you to determine the current time in another time zone or country by navigating with the left or right navigation keys.
Notepad	Allows you to add, read, edit, and erase notes.
Ez Tip Calc	Allows you to quickly and easily calculate bill amounts using the bill total, tip % and number of people as variables.

Receiving Calls

1. When the phone rings or vibrates, you can answer the call by simply opening the flip.
2. Press to end the call, or simply close the flip.

Bluetooth®

The LG5500 is compatible with devices that support Bluetooth. The following profiles are compatible: headsets, handsfree, phonebook access, basic printing, object push, file transfer and basic imaging. You may create and store 20 pairings within the LG5500 and connect to one device at a time.

The approximate communication range for Bluetooth® wireless technology is up to 30 feet (10 meters).

Notes

- ▶ Read user guide of each Bluetooth® accessory that you are trying to pair with your phone because the instructions may be different.
- ▶ The Bluetooth® word mark and logos are owned by the Bluetooth SIG, Inc. and any use of such marks by LG Electronics is under license. Other trademarks and trade names are those of their respective owners.
- ▶ Your phone is based on the Bluetooth® specification, but it is not guaranteed to work with all devices enabled with Bluetooth® wireless technology. Phone does not support ALL Bluetooth® OBEX Profiles.

Menu Overview

1. Contacts	4. Wireless Web	8. Tools
1. New Contact 2. Contact List 3. Groups 4. Speed Dials 5. My Name Card	1. Launch Web 2. Bookmarks 3. Go to Site	1. Voice Commands 2. Calculator 3. Calendar 4. Alarm Clock 5. Stopwatch 6. World Clock 7. Notepad 8. Ez Tip Calc
2. Call History	5. Media	9. Settings
1. Missed Calls 2. Received Calls 3. Dialed Calls 4. All Calls 5. View Call Timers	1. Ringtones & Sounds 2. Pictures & Images	1. Sound Settings 2. Display Settings 3. Phone Settings 4. Call Settings 5. Memory 6. Phone Info
3. Messaging	6. Bluetooth	
1. Voicemail 2. Create Message 3. Inbox 4. Sent 5. Drafts 6. Web Alerts	1. Power 2. Devices 3. Discovery Mode 4. My Device Info 5. Supported Profiles 6. Auto Pair Handsfree	
	7. Camera	
	1. Take Pictures 2. Pictures & Images	

Menu Access using internal Keypad

Press Menu to access phone menus. There are two methods of accessing menus and submenus:

- Use the navigation key to highlight and select, or
- Press the number key that corresponds with the menu (or submenu).

How to Use Menus

This section provides a quick glance of features on your phone.

Contacts Menu 1

The Contacts Menu allows you to store names, phone numbers and other information in your phone's memory. Allows you to store up to 1000 entries.

New Contact/ Contact List/ Groups/ Speed Dials/ My Name Card

Call History Menu 2

The Call History Menu is a list of the last phone numbers or Contact entries for calls you placed, accepted, or missed. It is continually updated as new numbers are added to the beginning of the list and the oldest entries are removed from the bottom of the list.

Missed Calls	Allows you to view the list of missed calls; up to 90 entries.
Received Calls	Allows you to view the list of incoming calls; up to 90 entries.
Dialed Calls	Allows you to view the list of outgoing calls; up to 90 entries.
All Calls	Allows you to view the list of all calls; up to 270 entries.
View Call Timers	Allows you to view the duration of selected calls.

Tools Menu 8

Voice Commands	This feature provides you with the following options equipped with AVR (Advanced Voice Recognition) technology. Each option has its detailed information on the phone and you can check it out by pressing the Left Soft Key .
Calculator	Allows you to perform simple mathematical calculations. You can enter numbers up to the eighth decimal place. Calculations can be made with up to 3 lines at one time.
Calendar	Allows you to keep your agenda convenient and easy to access. Simply store your appointments and your phone will alert you with a reminder you set.
Alarm Clock	Allows you to set up to three alarms.

Wireless Web Menu 4

Allows you to view internet content, especially designed for your mobile phone.

Launch Web	Allows you to initiate an Wireless Web session to the Home Page.
Bookmarks	Allows you to show the bookmarked web pages.
Go to Site	Allows you to connect the input web site.

Media Menu 5

Allows you to customize ringtones & sounds, get new pictures from web and take pictures.

Ringtones & Sounds	Personalize your phone with ringtones. A wide variety of choices are available, such as current hits, pop, hip-hop, and more.
Pictures & Images	View, take, and trade your digital pictures right from your wireless phone.

Bluetooth Menu 6

Power	Allows you to set Power On or Off.
Devices	Allows the handset to locate, establish, and register 1-to-1 connection with the target device.
Discovery Mode	Allows you to set whether your device is able to be searched by other Bluetooth devices in the area.
My Device Info	Allows you to edit the name of the Bluetooth device when Add New Device menu is highlighted.
Supported Profiles	Allows you to see profiles that your LG5500 can support.
Auto Pair Handsfree	Allows Bluetooth pairing with an audio device to be tried automatically with a default PIN code - 0000.

Camera Menu 7

Take Pictures	Lets you to take digital pictures.
Pictures & Images	Allows you to download a variety of images or to view and manage photos stored in the phone.

The Settings Menu has options to customize your phone.

Sound Settings Provides options to customize the phone's sounds.

Display Settings Provides options to customize the phone's display screen.

Phone Settings The Phone Settings Menu allows you to designate specific settings to customize how you use your phone.

Call Settings The Call Settings Menu allows you to designate how the phone handles both incoming and outgoing calls.

Memory Allows you to check your LG5500 internal phone memory.

Phone Info Allows you to check My Number, SW/HW Version, and Icon Glossary.

Safety

TIA (Telecommunications Industry Association) 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 it is ON, it receives and also 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)
- Health Canada, Safety Code 6, 1999.

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, IC Regulations (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: Do not 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.

Driving

Check the laws and regulations on the use of ireless phones in the areas where you drive and always obey them. Also, if using your phone while

Safety (Continued)

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 energy (RF) 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 telephones 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 Engineers (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 energy (RF) 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.

Important Safety Precautions and Warranty Information

Read these simple guidelines. Breaking the rules may be dangerous or illegal. Further detailed information is given in this user guide.

WARNING! Violation of the instructions may cause serious injury or death.



• Never use an unapproved battery since this could damage the phone and/or battery and could cause the battery to explode.



• Never place your phone in a microwave oven as it will cause the battery to explode.

• Never store your phone in temperatures less than -4°F or greater than 122°F.

• Do not dispose of your battery by fire or with hazardous or flammable materials.



• When riding in a car, do not leave your phone or set up the hands-free kit near to the air bag. If wireless equipment is improperly installed and the air bag is deployed, you may be seriously injured.



• Do not use a hand-held phone while driving.

• Do not use the phone in areas where its use is prohibited. (For example: aircraft, hospital)



• Do not expose the battery charger or adapter to direct sunlight or use it in places with high humidity, such as a bathroom.



• Do not use harsh chemicals (such as alcohol, benzene, thinners, etc.) or detergents to clean your phone. This could cause a fire.



• Do not drop, strike, or shake your phone severely. It may harm the internal circuit boards of the phone.



• Do not use your phone in high explosive areas as the phone may generate sparks.



• Do not damage the power cord by bending, twisting, pulling, or heating. Do not use the plug if it is loose as it may cause a fire or electric shock.



• 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.



• Do not handle the phone with wet hands while it is being charged. It may cause an electric shock or seriously damage your phone.



• Do not disassemble the phone.



• Do not place or answer calls while charging the phone as it may short-circuit the phone and/or cause electric shock or fire.



• Do not hold or let the antenna come in contact with your body during a call.



• Make sure that no sharp-edged items such as animal's teeth or nails, come into contact with the battery. This could cause a fire.



• Store the battery out of reach of children.



• Be careful that children do not swallow any parts. This could cause asphyxiation or suffocation resulting in serious injury or death.



• Unplug the power cord and charger during lightning storms to avoid electric shock or fire.



• Only use the batteries and chargers provided by LG. The warranty will not be applied to products provided by other suppliers.



• Only authorized personnel should service the phone and its accessories. Faulty installation or service may result in accidents and consequently invalidate the warranty.



• An emergency call can be made only within a service area. For an emergency call, make sure that you are within a service area and that the phone is turned on.

Safety (Continued)

not, it may cause excessive heat 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 fire or electric shock.

• Do not disassemble the phone.

• Do not place or answer calls while charging the phone as it may short-circuit the phone and/or cause electric shock 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.

• Do not short-circuit the battery. Metallic articles such as a coin, paperclip or pen in your pocket or bag may short-circuit the + and - terminals of the battery (metal strips on the battery) upon moving. Short-circuit of the terminal may damage the battery and cause an explosion.

• Never place your phone in a microwave oven as it will cause the battery to explode.

• Use accessories, such as earphones and headsets, with caution. Ensure that cables are tucked away safely and do not touch the antenna unnecessarily.

Warning! Important Safety Information Avoiding hearing damage Permanent hearing loss may occur if you use your phone and/or headset at a high volume. Set the volume to a safe level. You can adapt over time to a higher volume of sound that may sound normal but can be damaging to your hearing. If you experience ringing in your ears or muffled speech, stop listening and have your hearing checked. The louder the volume, the less time is required before your hearing could be affected. Hearing experts suggest that to protect your hearing:

• Limit the amount of time you use your phone and/or headset at high volume.

• Avoid turning up the volume to block out noisy surroundings.

• Turn the volume down if you can't hear people speaking near you. For information about how to set a maximum volume limit on your phone, see the features guide for your phone.

Using your phone safely Use of your phone while operating a vehicle is not recommended and is illegal in some areas. Be careful and attentive while driving. Stop using your phone if you find it disruptive or distracting while operating any type of vehicle or performing any other activity that requires your full attention.

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 radiofrequency energy (RF) in the microwave range while being used. They also emit very low levels of RF when in the Main Menu Screen. 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. Some 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

Safety (Continued)

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 and Transport Canada 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.

Charger and Adapter Safety

• The charger and adapter are intended for indoor use only.

• Do not expose the battery charger or adapter to direct sunlight or use it in places with high humidity, such as a bathroom.

Battery Information and Care

• Please dispose of your battery properly or take it to your local wireless carrier for recycling.

• Do not dispose of your battery by fire or with hazardous or flammable materials.

• Never use an unapproved battery since this could damage the phone and/or battery and could cause the battery to explode.

• Do not use your phone in a microwave oven as it will cause the battery to explode.

• Do not hold or let the antenna come in contact with your body during a call.

• Make sure that no sharp-edged items such as animal's teeth, nails, or come into contact with the battery. There is a risk of this causing a fire.

• Do not use harsh chemicals (such as alcohol, benzene, thinners, etc.) or detergents to clean your phone. There is a risk of this causing a fire.

• Do not handle the phone with wet hands while it is being charged. It may cause an electric shock or seriously damage your phone.

• Do not drop, strike, or shake your phone severely. Such actions may harm the internal circuit boards of the phone.

• 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 is dirty.

• Do not damage the power cord by bending, twisting, pulling, or heating. Do not use the plug if it is loose as it may cause a fire or electric shock.

• When using the power plug, ensure that it is firmly connected. If it is

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-declared 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. This device was tested for typical body-worn operations with the back of the phone kept 0.79 inches (2.0 cm) between the user's body and the back of the phone. To comply with FCC RF exposure requirements, a minimum separation distance of 0.79 inches (2.0 cm) must be maintained between the user's body and the back of the phone. Third-party beltclips, holsters, and similar accessories containing metallic components should not be used. Body-worn accessories that cannot maintain 0.79 inches (2.0 cm) separation distance between the user's body and the back of the phone, and have not been tested for typical body-worn operations may not comply with FCC RF exposure limits and should be avoided.

The FCC has granted an Equipment Authorization for this model phone and all reported SAR levels evaluated as in compliance with the FCC RF emission guidelines. The highest SAR value for this model phone when tested for use at the ear is 0.953 W/kg and when worn on the body, as described in this user's manual, is 0.643 W/kg. While there may be differences between SAR levels of various phones and at various positions, they all meet the government requirement for safe exposure. 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/lcdid> after searching on FCC ID: IC2703C-LG5500 To find information that pertains to a particular model phone, this site uses the phone FCC ID number which is usually printed somewhere on the case of the phone. Sometimes it may be necessary to remove the battery pack to find the number. Once you have the FCC ID number for a particular phone, follow the instructions on the website and it should provide values for typical or maximum SAR for a particular phone. 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 to the public and to account for any variations in measurements.

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

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

Consumer Information on SAR (Specific Absorption Rate) This Model Phone Meets the Government's Requirements for Exposure to Radio Waves. Your wireless phone is a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limits for exposure to radiofrequency (RF) energy set by the Federal Communications Commission (FCC) of the U.S. Government. These FCC exposure limits are derived from the recommendations of two expert organizations, the National Council on Radiation Protection and Measurement (NCRP) and the Institute of Electrical and Electronics Engineers (IEEE). In both cases, the recommendations were developed by scientific and engineering experts drawn from industry, government, and academia after extensive reviews of the scientific literature related to

the biological effects of RF energy. The exposure limit for wireless mobile phones employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR is a measure of the rate of absorption of RF energy by the human body expressed in units of watts per kilogram (W/kg). The FCC requires wireless phones to comply with a safety limit of 1.6 watts per kilogram (1.6 W/kg). The FCC exposure limit incorporates a substantial margin of safety to give additional protection to the public and to account for any variations in measurements.

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

Safety (Continued)

does with new drugs or medical devices. However, the agency has authority to take action if wireless phones are shown to emit radiofrequency energy (RF) 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 is exploring 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 levels 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 radiofrequency energy (RF) because of the short distance between the phone and the user's head. The 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 radiofrequency energy (RF) 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 don't 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 10 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 energy (RF). The FDA has been a leading participant in the World Health Organization International Electromagnetic 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

FCC Part 15 Class B Compliance

This device and its accessories comply with part 15 of FCC rules. Operation is subject to the following two conditions: (1) This device and its accessories may not cause harmful interference, and (2) this device and its accessories must accept any interference that causes undesired operation.

Industry Canada Compliance

This phone complies with Industry Canada RSS 133. This phone complies with the Class B limits for radio noise emissions as set out in the interference causing standard entitled "Digital Apparatus" (ICES-003) of Industry Canada.

FCC RF Exposure Information

WARNING! Read this information before operating the phone.

In August 1996, the Federal Communications Commission (FCC) of the United States, with its action in Report and Order FCC 96-326, adopted an updated safety standard for human exposure to Radio Frequency (RF) electromagnetic energy emitted by FCC regulated transmitters. Those guidelines are consistent with the safety standard previously set by U.S. Canada and international standards bodies. The design of this phone complies with the FCC guidelines and these international standards.

Bodily Contact During Operation

This device was tested for typical use with the back of the phone kept 0.6 inches (1.5 cm) from the body. To comply with FCC RF exposure requirements, a minimum separation distance of 0.6 inches (1.5 cm) must be maintained between the user's body and the back of the phone, including the antenna, whether extended or retracted. Third-party belt-clips, holsters and similar accessories containing metallic components should not be used. Avoid the use of accessories that cannot maintain 0.6 inches (1.5 cm) distance between the user's body and the back of the phone and have not been tested for compliance with FCC RF exposure limits.

Vehicle-Mounted External Antenna (Optional, if available.)

A minimum separation distance of 8 inches (20 cm) must be maintained between the user / bystander and the vehicle-mounted external antenna to satisfy FCC RF exposure requirements. For more information about RF exposure, visit the FCC website at www.fcc.gov.

Caution

Use only the supplied and approved antenna. Use of unauthorized antennas or modifications could impair call quality, damage the phone, void your warranty and/or result in violation of FCC regulations.

Do not use the phone with a damaged antenna. If a damaged antenna comes in contact with the skin a minor burn may result. Contact your local dealer for a replacement antenna.

Safety (Continued)

Use only the supplied and approved antenna. Use of unauthorized antennas or modifications could impair call quality, damage the phone, void your warranty and/or result in violation of FCC regulations.

Do not use the phone with a damaged antenna. If a damaged antenna comes in contact with the skin a minor burn may result. Contact your local dealer for a replacement antenna.

Use only the supplied and approved antenna. Use of unauthorized antennas or modifications could impair call quality, damage