Smartphone Guide for Medicine
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Platform ecosystem

Before deciding on a phone, you need to determine if the platform has programs that meet your needs. There are five platforms among the devices included in my guide:

- **Apple** App Store
- **BlackBerry** App World
- **Google** Android Market
- **Palm** Pre Apps
- **Windows** Mobile

Apple's App Store has the most listed applications (>75,000). Both paid and free apps are available. To view the actual App Store, you need to download iTunes.
Link: http://www.apple.com/iphone/apps-for-iphone/
List of top 25 iPhone apps: http://blog.openmedicine.ca/node/223

BlackBerry App World is new and has fewer apps than Apple. However, there are many, many programs that were released before App World existed, which may suit your needs.
Link: http://www.handango.com/
Link: http://appworld.blackberry.com/webstore/

Google Android Market is new, and only provides free apps to Canadian users. As of yet, paid apps are not available in Canada.
Link: http://www.android.com/market/

Palm is set to open its own App Store in late-September. An online catalogue is currently available. The Palm Pre also has legacy support for a wide range of older Palm OS programs.
Link: http://www.palm.com/us/products/software/mobile-applications.html

Windows Mobile is preparing a centralized platform for distributing software, called **Windows Mobile Catalog**. Software can also be purchased directly from developers, and because Windows Mobile is a mature platform, there are a wide variety of programs available.
Windows Mobile Catalog:
http://www.microsoft.com/windowsmobile/catalog/cataloghome.aspx
Link: http://www.handango.com/
Link: http://www.smartphonemag.com/cms/_archives/Feb06/medical.aspx

The **OMA** has a list of downloadable resources for all of the above platforms.
Link:
https://www.ontariomd.ca/portal/server.pt?space=CommunityPage&control=SetCommunity&CommunityID=394&PageID=0 (OntarioMD login required, free for OMA members)

Communication

In my guide, there are several wireless communication technologies that are used between your cell phone and the carrier's cell towers.

In general, higher speeds mean faster web page loading. **3G**, or third-generation technologies, generally drain power faster than **2G** technologies. Most 3G phones can be set to use 2G mode only to conserve power. Actual speeds depend on the device and whether the carrier's cell towers support higher data rates. Real-life 3G speeds are in the 1-2 Mbps range.

3G GSM, otherwise known as HSPA or HSDPA/HSUPA, is a fast standard that provides bandwidth of up to 14 Mbps downlink and 5.8 Mbps uplink. GSM is a global standard used worldwide, which allows international roaming with your device.

3G EvDO, otherwise known as 1x-EvDO Rev A, is analogous to 3G GSM. It is also a fast standard, providing bandwidth of up to 3.1 Mbps. EvDO is incompatible with GSM networks, preventing cell phone use in some countries abroad. Some devices support both EvDO and GSM to overcome this limitation.

2G GSM, also known as EDGE, is an older standard of GSM that provides data rates of up to 1 Mbps. 2G GSM is much slower than 3G GSM. All 3G GSM devices work with 2G GSM networks.

Typical home internet broadband speeds are in the 2-10 Mbps range downstream, and 0.2-0.8 Mbps upstream.

Wireless

In addition to the communication technologies listed above, which are for communicating between your phone and your carrier, there are also protocols for communicating between your phone and your own internet connection at home, and your computer.

Wi-Fi allows you to surf the internet, download files, and sometimes make calls over your own wireless internet connection at home. This allows you to work without consuming your data allocation, as provided by your data plan. In general, Wi-Fi data transfer is faster than transfer over 3G networks.

Bluetooth is a short-range wireless technology that allows your phone to synchronize with your computer without connecting a USB cable. This permits you to load your contacts, calendar, applications, and other files in a convenient manner. Bluetooth technology also permits use of wireless headsets, car integration, and other devices.

Keyboard

Whether you prefer touch keyboards, which provide "virtual" touchscreen keys versus real buttons is a personal choice. In general, touch keyboards provide larger screens than button keyboards. However, virtual keyboards provide no tactile feedback and some may find them harder to use initially. Bottom line: remember to try out your device before purchasing.

Left: Example of a "virtual", touchscreen keyboard.

Right: Example of a button phone keyboard.

Memory

MicroSD is a memory card format that provides a way to expand the memory capacity of your device. Memory is useful for storing things like applications, music, pictures, and videos. A link to a list of MicroSD cards and their costs are provided below.
Link: Canada Computers
http://www.canadacomputers.com/index.php?do=ShowProdList&cmd=pl&id=FMD.218.987

Data/voice plan

There are other data/voice plans available other than the ones I've listed. Be sure to look into other choices, including **Business** plans. In some cases, data plans are **optional**, which may save you money!

Be sure that you subscribe to a data plan that has enough data for your use. Some plans include e-mails in your data allocation, while others may provide unlimited e-mail. Because images, e-mail attachments, and multimedia content on websites can be bandwidth-intensive, 0.5 GB (or 500 MB) can be easily exceeded. Note the overage charges, and monitor your monthly bandwidth use accordingly.

Remember, contracts may be up to **3 years** in length. If your monthly cost is $60 (with fees and taxes included), you may be spending **more than $2,000** for the duration of your contract! For more information, visit http://cellplanexpert.ca/, which is a free service that can optimize your voice plan based on your calling usage patterns.

General caveats

1. There are many other models than the devices I've listed. Be sure to look into alternative devices.
2. Some of the devices I have listed are available under other carriers.
3. The costs I have provided do not include one-time activation fees, 911 fees, GST, PST, or other charges that carriers may levy on you. Caveat emptor!
4. Remember, **Mobile Number Portability** (MNP) exists in Canada. If you have an existing cell phone, you can change carriers without losing your phone number. To take advantage of this, however, you must activate your new phone *before* cancelling your old one.

Final notes

This is by no means a comprehensive guide. I have followed some general guidelines about inclusion of devices:
- Only phones with an ability to add third-party programs were included.
- Only cell phone plans with data access included were considered.
- I have tried to include a balance of devices from different manufacturers, carriers and platforms.

The information presented here was believed to be accurate at the time of compilation. Please check with the respective companies for the latest information.