

Smartphones: Ask 4 questions before you buy

PDA/cell phone combinations let you surf the Internet, plan your schedule, and more. Which models are right for your practice?

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'Smartphones,' hybrid cell phones and personal digital assistants (PDAs), are increasingly helping psychiatrists stay in touch on the road or manage multi-site practices.

This article reviews the capabilities of most smartphone models ([Table](#)) and offers practical advice to help you choose the right device for your practice.

WHAT YOU CAN DO WITH A SMARTPHONE

Make phone calls. Most smartphones integrate high-end wireless phone features such as selective call screening, Bluetooth wireless device compatibility, moderate-resolution cameras, and voice recognition for hands-free dialing. Call quality varies by device but is generally above average as cell phones go.

Smartphones cost between \$100 and \$500 depending on model (the more cutting-edge the smartphone, the higher the price) and whether a service activation discount is offered. A service provider's area and coverage uniformity usually affects call quality.

Some service plans include data service (ie, e-mail) with phone service, whereas others charge an extra monthly fee depending on volume of data to be transmitted.

Send and receive e-mail. Smartphones include fully featured e-mail clients. While away from the office, you can save immeasurable time communicating with staff and colleagues via text instead of paging and waiting for callbacks.

"Pop-ups" let you quickly view and respond to e-mails without disrupting workflow. You can automatically send messages such as "will call you after this meeting" and "please call my receptionist for a meeting time" without having to type them.

Smartphones can be set to check e-mail at intervals. Many wireless service providers offer "push e-mail," which is broadcast to your device as soon as the e-mail server receives it, but you don't need this service if you are satisfied with receiving e-mail every 15 minutes or longer.

Search the Web. Smartphones are equipped with browsers, so you can enter key words and quickly retrieve online abstracts while away from the office. For psychiatrists practicing at multiple sites or without immediate Internet access, this point-of-care search capability can be priceless.

Organize your schedule. Datebook/calendar, address book, memo, and task list functions are cross-linked with telephony. You can make a phone call directly from an address book listing, dial by tapping on a number included in an e-mail message, and automatically add a contact to your address book after a call. You can insert contact numbers and tasks into the calendar and set reminder alarms and alerts as needed.

Task lists consolidate daily to-do lists, and reminders keep missed tasks top of mind the next day. On more-advanced models, appointment calendars can be updated wirelessly several times daily, so you can add appointments or meetings while away from the office without having to call in for a scheduling update.

Create/edit multimedia files. Recording, editing, and playing back videos, photos, audio recordings (dictation and MP3s), and even feature-length movies are becoming common handheld features.

More-advanced smartphones that are compatible with Palm OS and Pocket PC let you open and edit Microsoft Office documents, edit and play back PowerPoint presentations through a monitor or LCD projector, or create or modify Microsoft Word or Excel documents on a mobile platform. This mobile software is included with some phones and can be purchased with others.

Beat 'belt clutter.' Some smartphones consolidate cell phone, pager, PDA, dictation recorder, appointment book, and wristwatch functions. By taking the place of these devices, a smartphone can reduce pocket and belt clutter, a common problem among doctors.

DRAWBACKS

Screen size. The smartphone's screen size and slow downloading impede its use as a stand-alone Internet browser. Smartphone screens can be similar in size to a PDA screen (4 inches diagonally) or relatively small (2 inches-by-2 inches), although resolution is usually high. Viewing full-size Web pages can be challenging, though most phones offer an option to adapt them for small-screen viewing.

Internet surfing. Broadband data transfer rates are only now appearing with service providers in different areas. Broadband will make smartphone Web surfing and data transfers much faster. By and large, however, Internet surfing is limited to analog modem speeds, so you'll be waiting a while for Web pages to appear on your screen.

Security. Most smartphones use Bluetooth short-range radio to connect with headsets and computers. Hackers have exploited this technology in public places, so phones left open to Bluetooth 'discovery' by other phones can be breached.

This can spell trouble if you store medical records on your smartphone. If an unauthorized person accesses these records, you would be violating HIPAA privacy regulations because you are responsible for protecting patient information.

You can activate a password protection system using various encryption algorithms on your smartphone to guard against theft. You can also selectively encrypt some files, though having to repeatedly enter passwords to access the secure files slows daily use.

CHOOSING A SMARTPHONE

Your new smartphone will be your practice "companion," so you want to get this choice right. As you shop for a smartphone, ask yourself:

1. **Which medical reference software do I plan to use?** As with PDAs, smartphones work on the Palm OS or Windows Mobile/Pocket PC operating systems. Although most major medical reference titles—such as Lexi-Comp and Epocrates—come in Palm OS and Windows Mobile/Pocket PC versions, others are compatible with only one operating system.






Avoid smartphones that run on OS for Blackberries and Symbian OS, as very few medical software titles work with these operating systems.


2. **Can I read the screen display?** Although text usually can be enlarged or shrunk, screen size determines how much you can see at a glance. Make sure you're comfortable with the display before you purchase.
3. **Can I work the keyboard?** Most smartphones integrate a small QWERTY keyboard for sending e-mail. Each smartphone keyboard has a different feel; make sure you can type comfortably and accurately.
4. **Which form feels most comfortable?** Smartphones range from candy-bar shaped and flip phones, to slider and

clamshell models.

In the end, the answers to these questions—plus a hefty dose of visceral appeal—should influence your choice. Smartphones are constantly evolving, so you're better off taking the plunge rather than waiting for the ultimate smartphone.

Table
Smartphone models: Sample listing

Model	Key features/cost
 Motorola Q	<ul style="list-style-type: none"> - Microsoft Windows Mobile 5.0 - Slim form factor - Cutting-edge design - Price unknown - Available this Spring
 Palm Treo 650	<ul style="list-style-type: none"> - Palm OS (650) - Ergonomic design - Largest library of medical reference software available - Touch screen 320x320 pixels - \$219-\$548
 Palm Treo 700W	<ul style="list-style-type: none"> - Windows Mobile 5.0 - Ergonomic design - Touch screen 240x240 pixels - \$399-\$499
 Samsung SCH-i730	<ul style="list-style-type: none"> - Microsoft Windows Mobile for Pocket PC Phone Edition 2003 SE - Runs full Microsoft Office Mobile suite - Slide-out keyboard and touch screen input - \$429-\$499
 	<ul style="list-style-type: none"> - RIM Blackberry OS - EDGE enabled for fast Web browsing - Push e-mail (no latency) - \$0-\$299

RIM BlackBerry 8700c	
 <p>HP iPaq hw6900</p>	- Microsoft Windows Mobile 5.0 Pocket PC Phone Edition
	- Integrated GPS receiver with navigation software
	- Runs full Microsoft Office Mobile suite
	- Wi-Fi- and EDGE-enabled for fast Web browsing
	- Push e-mail
	- Pricing unknown
	- Available late spring
Source: www.cnet.com	

Related resources

Brighthand Consulting. Reviews and other information on smartphones, other handhelds. www.brighthand.com.

Cnet.com. Listing of 90 smartphone models by manufacturer, carrier, other criteria. http://reviews.cnet.com/4566-6452_7-0.html?tag=coco.

Engadget. Reviews of smartphone models. <http://www.engadget.com/search/?q=smartphones>.

Disclosure

Dr. Montgomery reports no financial relationship with any manufacturer whose products are mentioned in this article or with manufacturers of competing products.