



**SIAST**

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APPLIED SCIENCE AND TECHNOLOGY

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# Decreasing the load

## Use of electronic resources in nursing education

*Roslyn M. Compton* MEd, RN

[roslyn.compton@siast.sk.ca](mailto:roslyn.compton@siast.sk.ca) 306 966 6521

*Madeline M. Press* MN, RN

[madeline.press@siast.sk.ca](mailto:madeline.press@siast.sk.ca) 306 966 8397

# Presentation Objectives

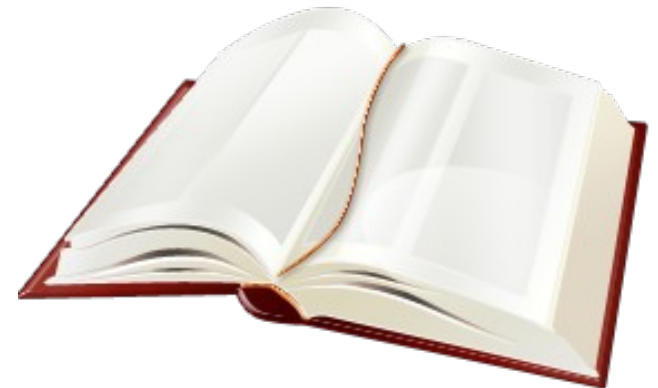
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- What is a PDA?
- What are electronic resources?
- How can we use them in nursing education?
- What are the differences between using paper resources and electronic resources?
- What are the benefits to electronic resources?
- What pitfalls have been identified?

# What are e-resources?

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- E-books
- E-book resources
- Interactive suites
  - Unbound Medicine
  - Elsevier
  - Pepid
  - Skyscape
  - Lexi-Comp



# Literature – E-resources

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- Innovative
- Interactive
- Interesting
- Accessible
- Affordable
- Limitations



# How can we use e-resources in nursing education?

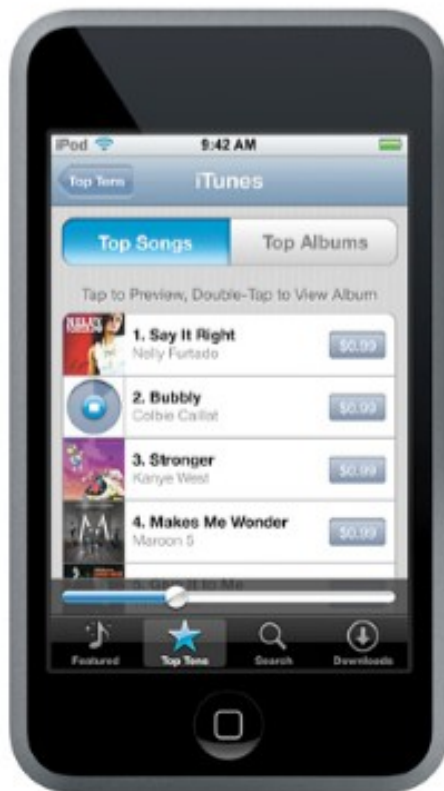
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- Reading assignments
- Testing and grading
- Classroom activities
- Independent research

*A new way of learning...*

# What is a PDA?

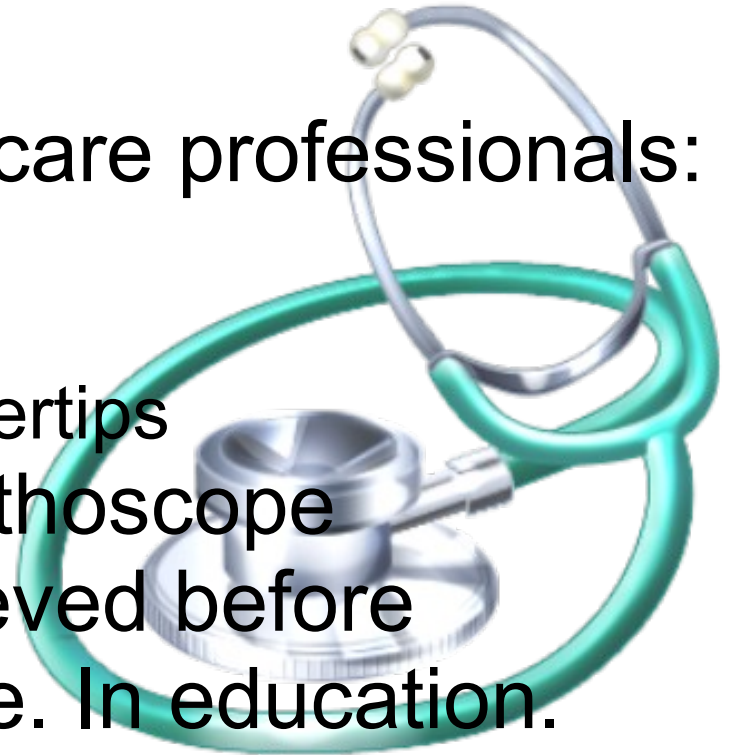
- Small, handheld, electronic device
  - Provides instant access to tools



# What does the literature say about the use of PDAs in healthcare?

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- Deficit of resources
- Standard for all healthcare professionals:
  - Safety and security
  - Ease of access
  - Resources at your fingertips
- As necessary as a stethoscope
- Comfort must be achieved before professional practice ie. In education.





# Advantages of Using PDA's in Healthcare

- Efficient use of time
- Compact
- Increases confidence
- Patient education
- Patient safety
- Autonomy





# Advantages of Using PDA's for the student

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- Access – 24/7
- Portability – always on them, no weight involved, pocket sized
- One stop shop
- Cross-indexing
- Interactive classrooms
- Familiarity with technology
- Getting with the times

# Challenges of Using PDA's in Healthcare

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- Main categories
  - Security
  - Infection control
  - Management
  - IT
- Implementing technology to enhance learning
- Framework for technology implementation

# PDAs and Nursing Central

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Choosing a suite



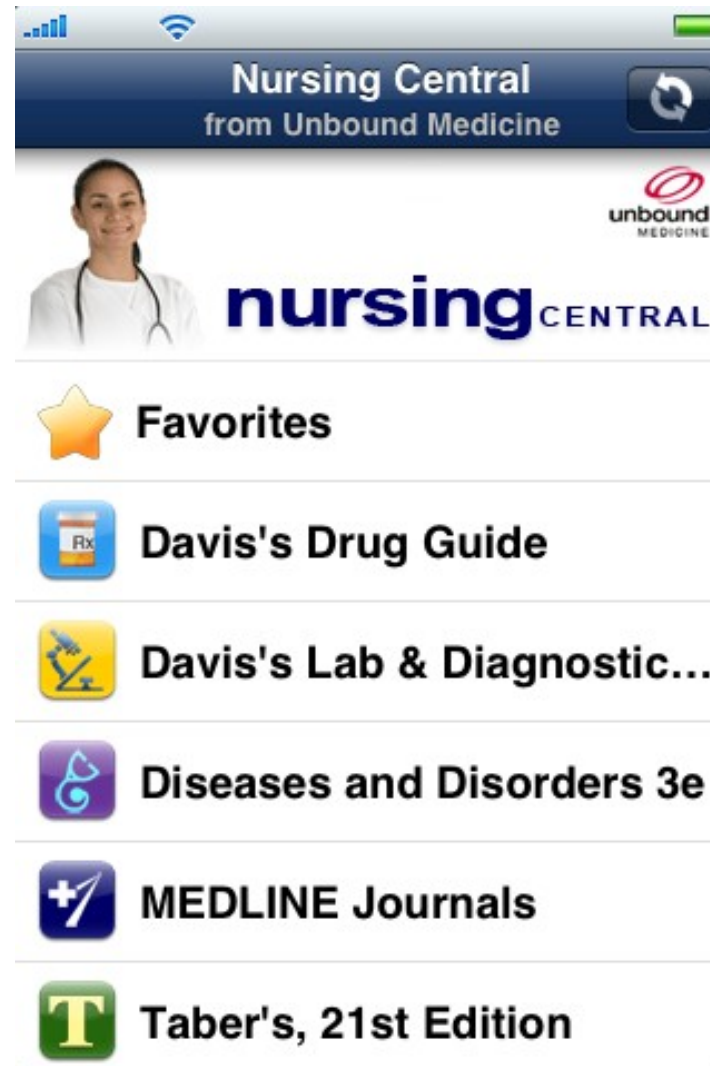
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# Nursing Central

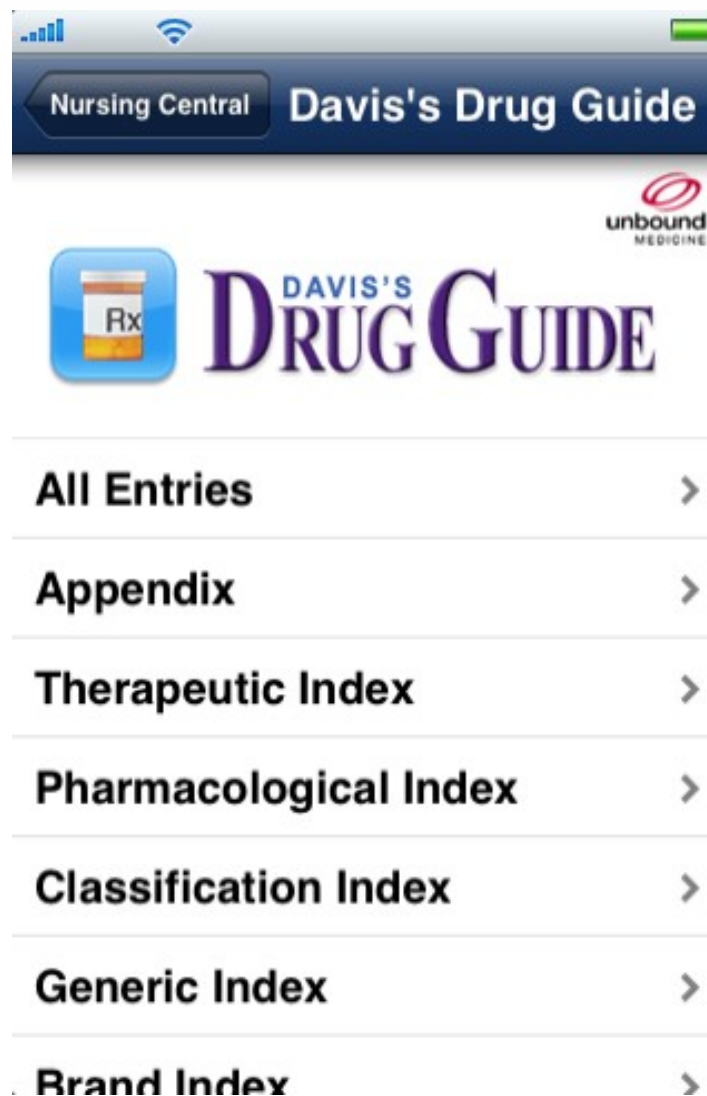
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- <http://nursing.unboundmedicine.com/u>

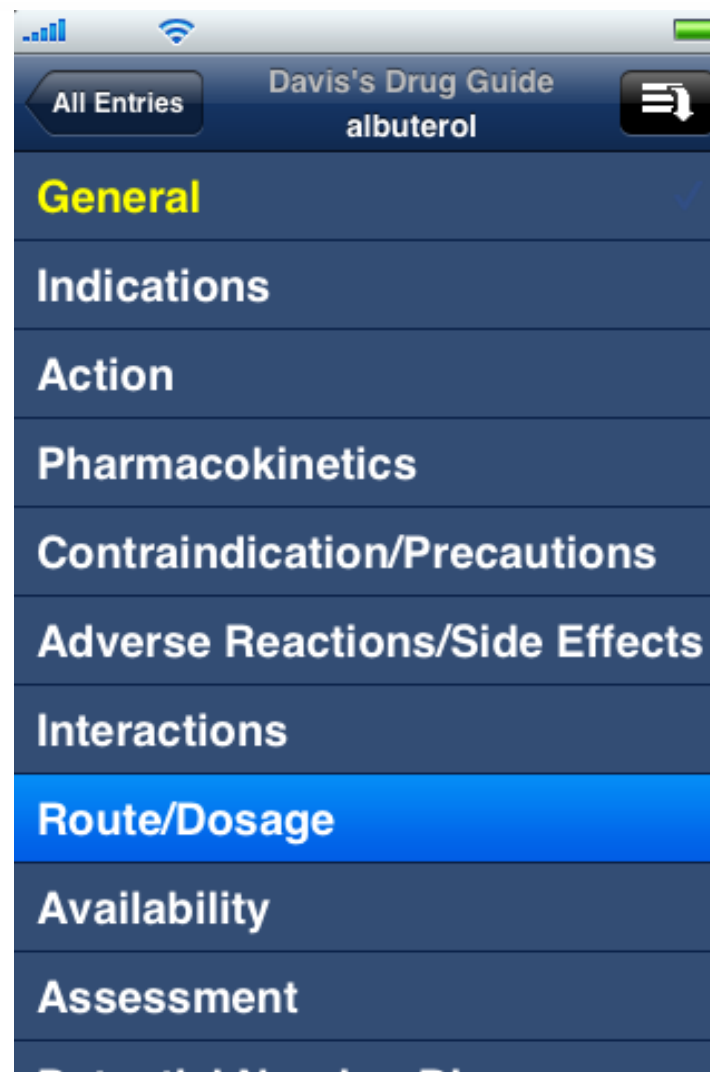
# PDA Homepage



# Davis's Drug Guide

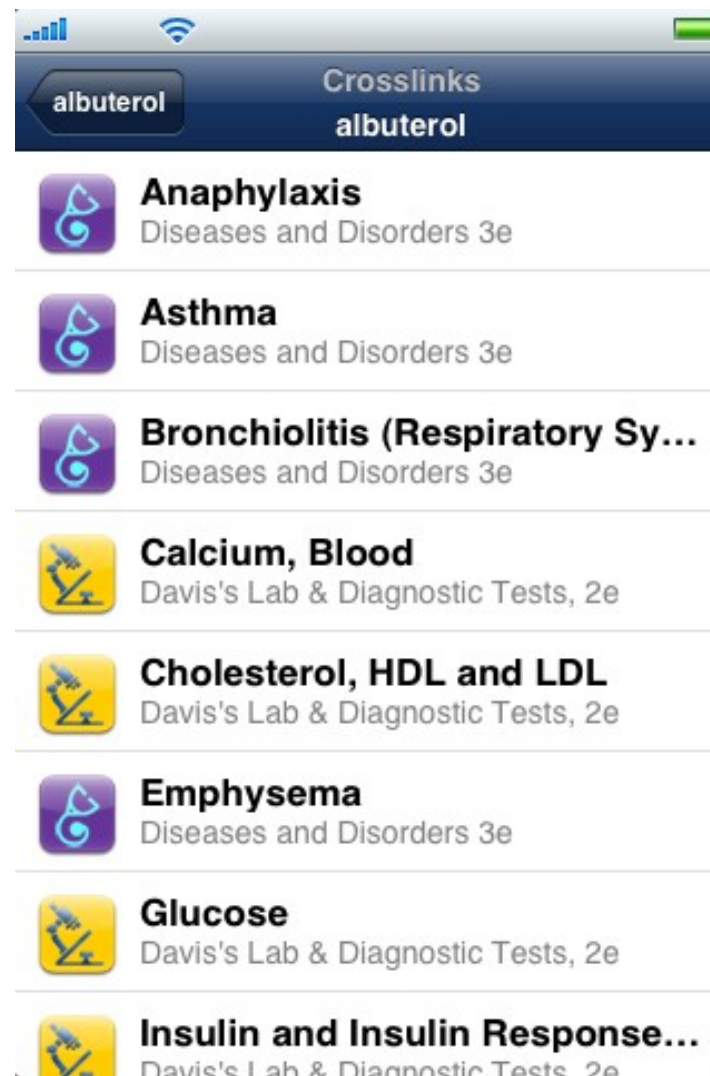


# Drug Monograph

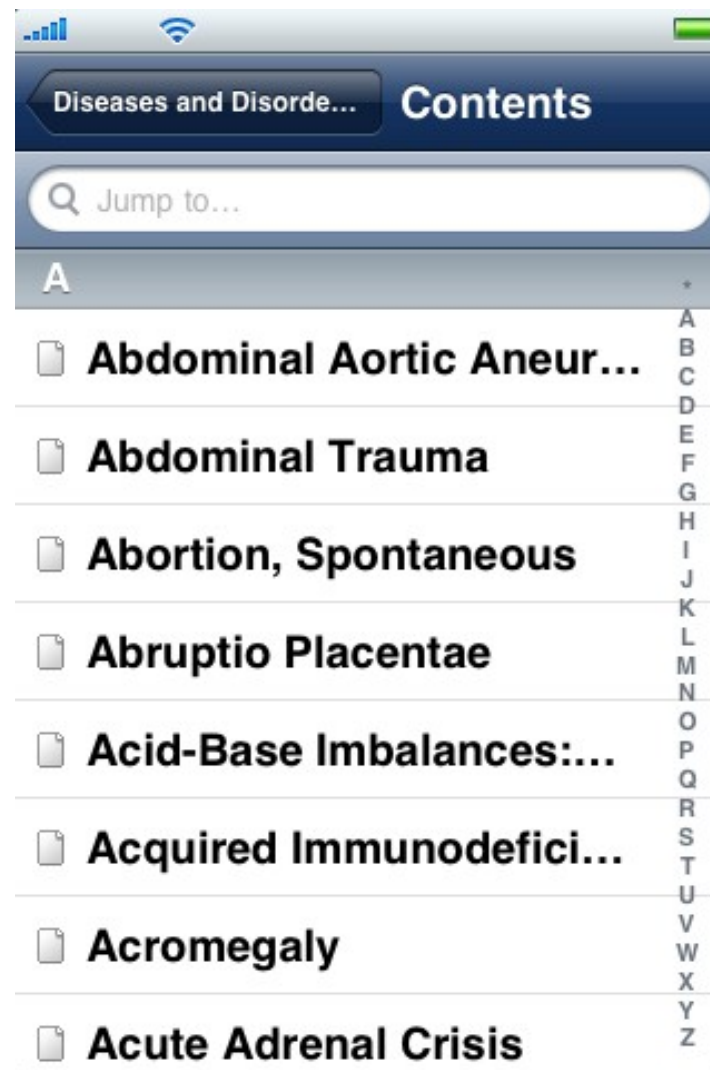




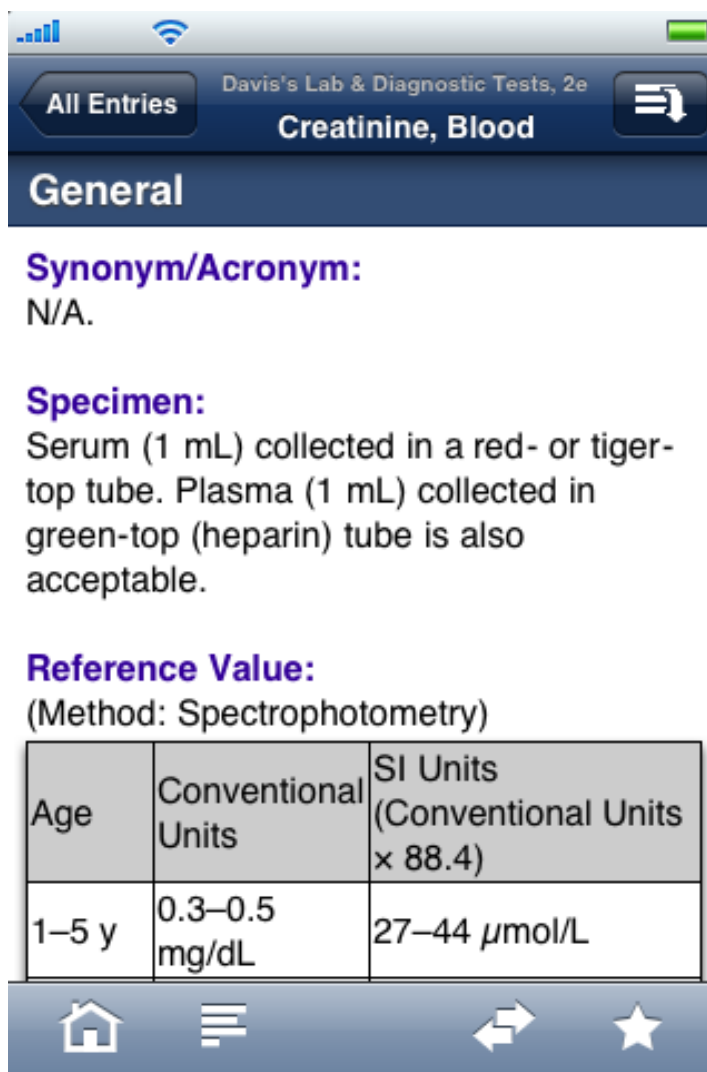
# Cross-indexing



# Diseases and Disorders (3rd ed.)

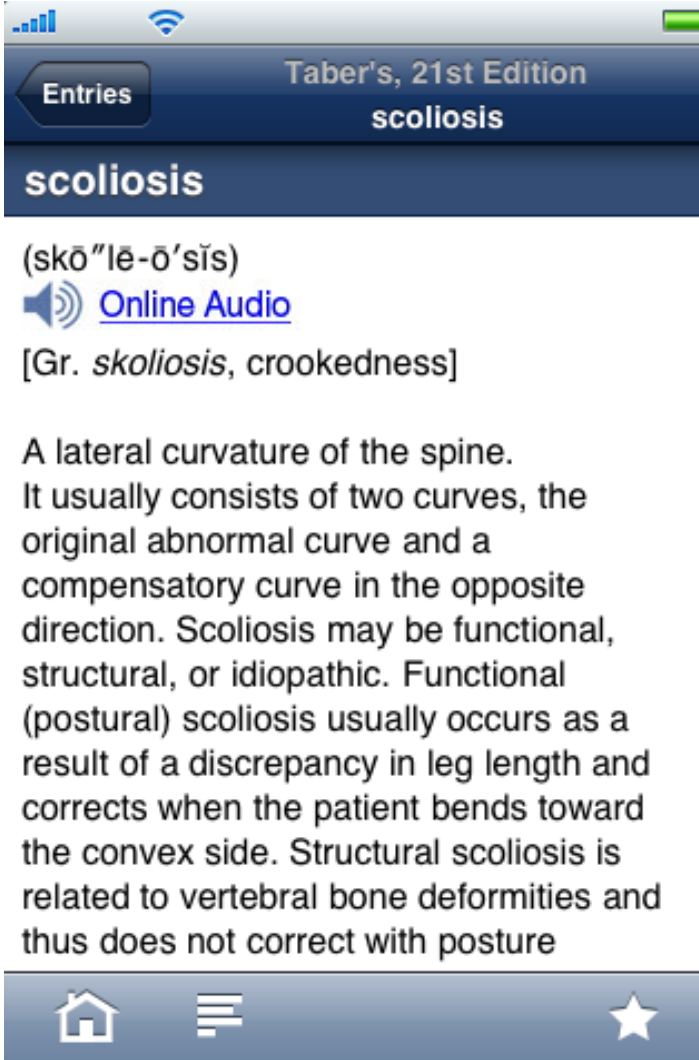


# Davis's Lab & Diagnostic Tests (2nd ed.)



Age	Conventional Units	SI Units (Conventional Units × 88.4)
1–5 y	0.3–0.5 mg/dL	27–44 µmol/L

# Taber's 21st Ed.




The screenshot shows a mobile application interface for Taber's 21st Edition. At the top, there's a status bar with signal strength, Wi-Fi, and battery icons. Below it, a dark blue header bar contains a back arrow, the text "Taber's, 21st Edition", and a battery icon. A dark blue button labeled "Entries" is on the left. The main content area has a dark blue background with the word "scoliosis" in white. Below this, the phonetic transcription "(skō"lē-ō'sīs)" is shown, followed by a speaker icon and a link to "Online Audio". The definition "[Gr. *skoliosis*, crookedness]" is listed. A paragraph of text describes scoliosis as a lateral curvature of the spine, usually consisting of two curves. The bottom of the screen features a navigation bar with a home icon, a list icon, and a star icon.

Taber's, 21st Edition  
scoliosis

scoliosis

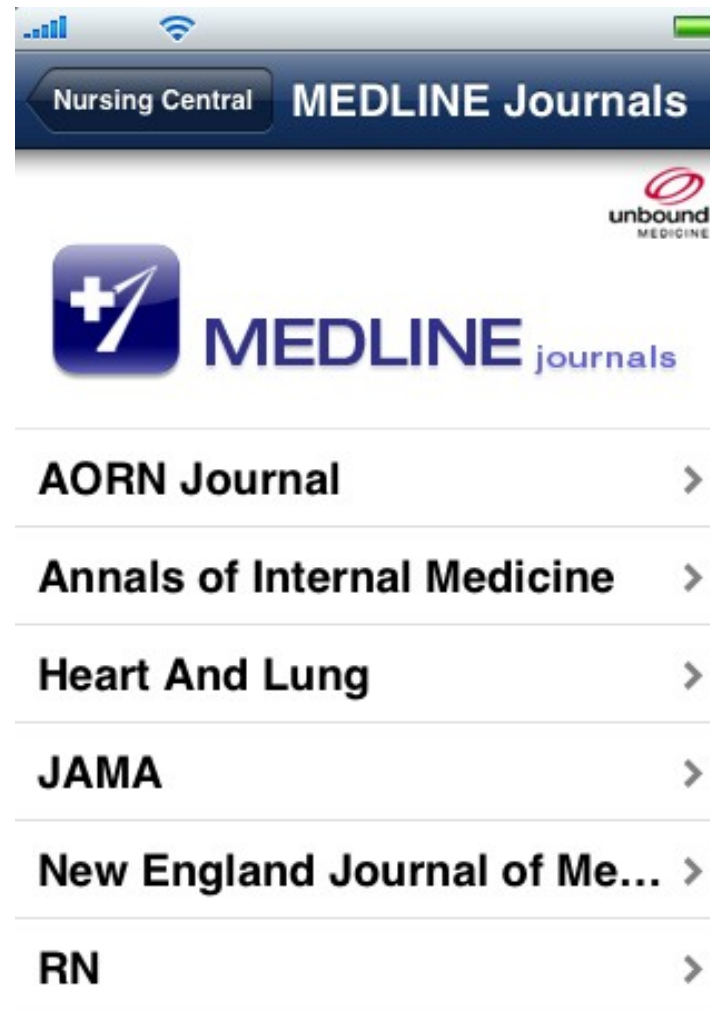
(skō"lē-ō'sīs)

 [Online Audio](#)

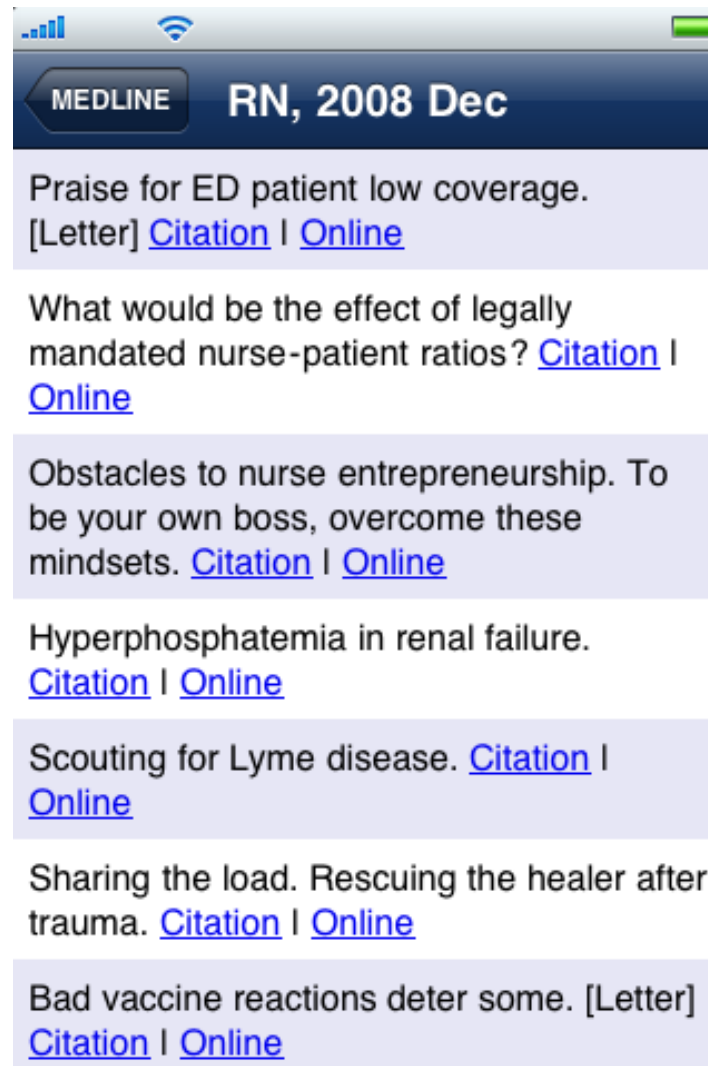
[Gr. *skoliosis*, crookedness]

A lateral curvature of the spine. It usually consists of two curves, the original abnormal curve and a compensatory curve in the opposite direction. Scoliosis may be functional, structural, or idiopathic. Functional (postural) scoliosis usually occurs as a result of a discrepancy in leg length and corrects when the patient bends toward the convex side. Structural scoliosis is related to vertebral bone deformities and thus does not correct with posture

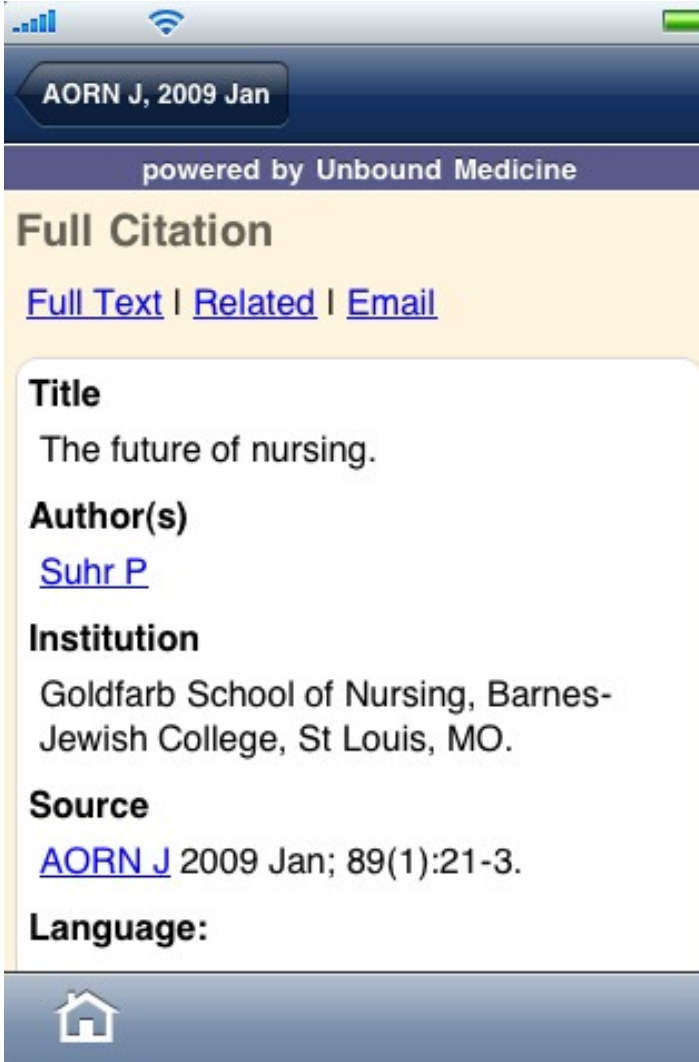
# Medline Journals



# Journal example



# Article Citation



AORN J, 2009 Jan

powered by Unbound Medicine

**Full Citation**

[Full Text](#) | [Related](#) | [Email](#)

**Title**  
The future of nursing.

**Author(s)**  
[Suhr P](#)

**Institution**  
Goldfarb School of Nursing, Barnes-Jewish College, St Louis, MO.

**Source**  
[AORN J](#) 2009 Jan; 89(1):21-3.

**Language:**

Home icon





# PDA's in a Nursing Program

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SDEO

# Study Objectives

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- Identification of student preferred mobile electronic devices
- Difficulties encountered in purchasing and accessing software
- Did the students actually use the resources?
- Was student learning supported by these resources?

# Methodology

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- Questionnaire
- Sample - demographics
- Timing of questionnaires
  - Pre and during clinical
  - Post clinical

# Identification of student preferred mobile electronic devices (n=36)

## What type of mobile electronic data storage device do you own?

iTouch	69%
Blackberry	24%
Laptop	30%
Palm pilot	3%

## How long have you had your mobile electronic device?

< 6 mth	62%
6-12 mth	16%
13-18 mth	3%
19-24 mth	5%
> 25 mth	14%

## Does your mobile electronic device have internet access?

Yes	91%
No	6%
Don't know	3%

## How do you use your mobile electronic storage device?

Contact information	60%
Wireless access	72%
Calendar	31%
Storage	22%
Nursing Central website	50%
Note taking	28%
Music	11%
Phone	5%
Other	3%

# Features of PDA's

## The Pros and Cons

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- **Benefits**
  - Accessibility to information at any time
  - Portability
- **Pitfalls**
  - Battery life
  - Awkward to use
  - Too complicated
  - Availability of internet access

# Purchasing and Accessing Platform and Suite

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- Cost
- Choosing a platform
- Technical difficulties
- Other

## Resources Utilized



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Resource	Classroom Lab (n=42)	During clinical (n=33)
Drug Guide	10	79
Lab Diagnostics	7	61
Nursing Diagnosis	5	52
Diseases/ Disorders	10	36
Dictionary	5	15



# Support of Learning

**Do you feel Nursing Central resources support your learning?**

**Agree**  
**Disagree**  
**Neutral**

**24%**  
**8%**  
**68%**

# Implementation

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## Incorporating PDA's into your curriculum

***'Technology should not be used for the sake of playing with technology but to enhance the learning experiences in ways that could not be the same without it.'***

Weiner (2008)



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# A Structured Approach

- Review of available suites
- Selection of device
- Faculty education
- Student education
- IT support



Weight-By-Date P



Weight-By-Date Mobile

# Benefits of implementation

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- Why it should be a requirement
  - Scholarship money
  - Motivation
  - Current technology
  - Transition into clinical practice

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