


1

**“THERE’S AN APP FOR THAT”**

**BROOKE KEARINS, MSN, RN, CRNP, SCRNP**  
**JEANIE LUCIANO, MSN, RN, CNRN, SCRNP, CRNP, FAHA**  
**SASHA-FAE LOPEZ, MSN, RN**  
**ALICIA RICHARDSON, MSN, RN, ACCNS-AG, ANVP-BC**

2

 American Stroke Association.  
A division of the American Heart Association.

2

## DISCLOSURES

**BROOKE KEARINS: NONE**

**JEANIE LUCIANO: NONE**

**SASHA-FAE LOPEZ: NONE**

**ALICIA RICHARDSON: STRYKER NEUROVASCULAR CONSULTANT**

3



3

## WHAT IS AN APP?



4



4

 Text **SASHALOPEZ101** to **22333** once to join, then **A or B**

 iOS **A**  Android **B**



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5

## PATIENT FOCUSED APPS



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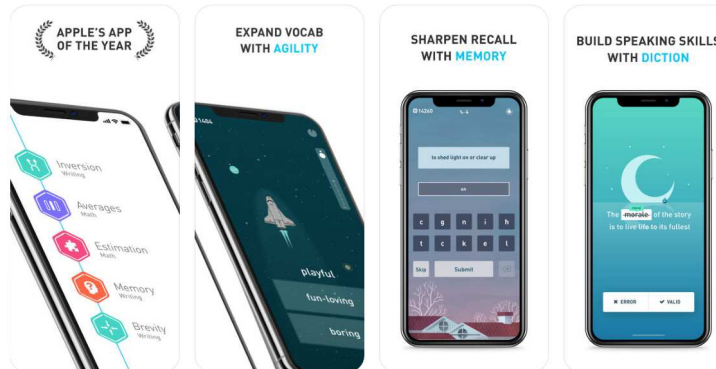
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## ELEVATE

iOS and Android  
Free

- If you are experiencing cognitive function problems after stroke, brain-training apps provide a platform to exercise and improve the areas of the brain involved in concentration, memory, planning, reason, and problem-solving.



7



7



## Glasses

iOS  
Free

- Glasses is a digital magnifier and mirror that can help you to view fine print and objects with up to 12x magnification.
- If your vision is impaired after stroke or you have simply forgotten your glasses, the app can zoom in on labels and nutritional information in a grocery store and menus in dark restaurants as well as help you see how much to pay on the bill after eating out.
- Glasses is simple to use. Double tapping quickly zooms in or out by 6x, while swiping uses a slow and continuous zoom method. If you have shaky hands, you can tap and hold to freeze the image on screen.

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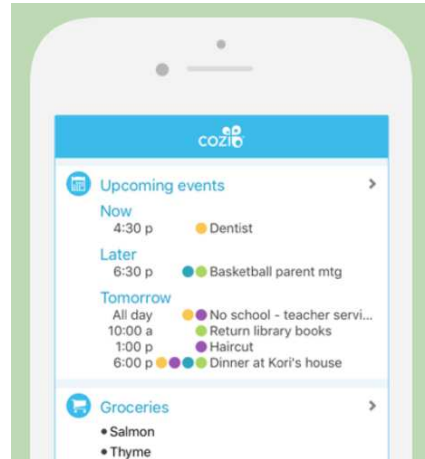


## COZI

iOS and Android  
Free

Cozi is a family organizer designed to keep track of multiple schedules.

- The app can help caregivers to manage their schedules and is ideal if the person recovering from a stroke has several caregivers.
- Keep track of schedules with a shared color-coded calendar and set reminders for yourself or other family members so that medical appointments and medications are not missed.
- Shopping and to-do lists can also be shared with everyone in the family to ensure that you have everything you need from the grocery store. All items added to lists are viewable instantly in real-time.



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9

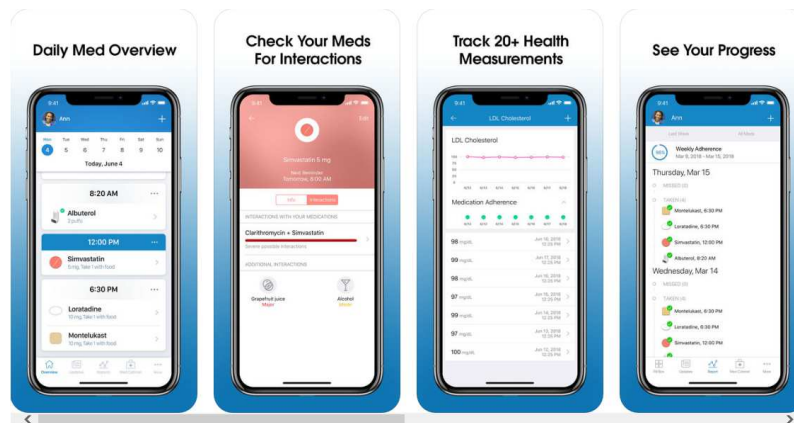
9



## Medisafe

iOS and Android  
Free

- Medisafe is the must-have pill reminder that makes sure that you never miss a dose of your medication or mistakenly double up due to not tracking your medications ever again.



American  
Stroke  
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A division of the  
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10

10



### Stop, Breathe & Think

iOS and Android

Free

- Research has shown that increased activity in a brain region called the amygdala, which is involved in stress, is tied to a greater risk of stroke. Therefore, reducing stress while in recovery from stroke could reduce the risk of future strokes.
- Stop, Breathe & Think is a meditation and mindfulness app that helps to decrease stress and anxiety. The app provides guided meditations, breathing exercises, and yoga and acupressure videos to help you check in with your emotions.
- Stop, Breathe & Think says that taking a few minutes every day to feel calm is just as important as getting frequent exercise and will reduce stress and promote peace of mind.



11



11



### 7 MINUTE WORKOUT CHALLENGE

iOS and Android

\$2.99

- Working out three to five times per week reduces the likelihood of recurrent stroke by fivefold, according to a study published in the journal *Neurology*.
- If you are unsure of how to start an exercise routine after stroke, the **7 Minute Workout** Challenge app could be the perfect app for you. The 7-minute workout is a research-backed exercise program that has become a hit internationally.
- Scientists have put together 12 exercises to perform for 30 seconds each with a rest period of 10 seconds in-between. The exercise sequences are easy to do, require no equipment, and can be done anywhere.

12



12



### Peak

iOS and Android

Free

- The **Peak** app includes 40 unique brain-training games developed by neuroscientists to challenge and build your cognitive skills.
- Peak features a personal brain trainer, known as Coach, who selects the perfect workouts for you at the correct time. Choose your training exercises from Coach's recommendations to challenge yourself and stay motivated by tracking your progress with in-depth insights.
- Free games challenge your attention, memory, problem-solving skills, mental agility, coordination, emotional control, language, and creativity. Upgrade to Pro for additional features.



13



13



### Language Therapy 4-in-1

iOS and Android

\$59.99

- After stroke, it is common to experience a condition called aphasia, which affects your ability to understand what people are saying, find the right words, and read and write. Aphasia is often a symptom of the brain damage caused by stroke.
- **Language Therapy 4-in-1** is a scientifically proven speech therapy app that aims to improve speaking, listening, reading, and writing in those with aphasia. Get started by giving their free version, Language Therapy Lite, a try.
- Research led by the University of Cambridge in the United Kingdom found that using the app for 20 minutes each day for 4 weeks showed improvements in all study participants with chronic aphasia.



14



14





## Constant Therapy

iOS and Android

Free trial

- **Constant Therapy** is a cognitive and speech therapy app designed for individuals who are recovering from stroke, brain injury, and aphasia. The app is free for 15 days and then offers users the chance to continue with a monthly or annual subscription.
- With more than 65 task categories, 100,000 exercises, and 10 levels of difficulty, Constant Therapy can help to improve cognition, memory, speech, language, reading, and comprehension skills.
- Constant Therapy was developed by scientists at Boston University in Massachusetts and is recommended by neurologists, speech language pathologists, and occupational therapists. Research published in the journal *Frontiers in Human Neuroscience* showed a significant improvement in standardized tests for stroke survivors after using Constant Therapy.



15

15



## VocalEyes

iOS

Free

- Stroke can sometimes cause damage to brain areas that receive, process, and interpret information sent from the eyes. This damage may result in losing part of your field of vision or causing double vision.
- **VocalEyes** is computer vision for the visually impaired. The app uses machine learning to help people with vision problems identify objects in their everyday lives. Take a photo, and the app will tell you what the camera sees.
- VocalEyes's audio response describes scenes and environments, identifies objects, label logos, and brands, reads text, detects faces, classifies emotions, recognizes ages, and distinguishes currency denominations.



16

16



# HEALTHCARE PROFESSIONAL APPS



17

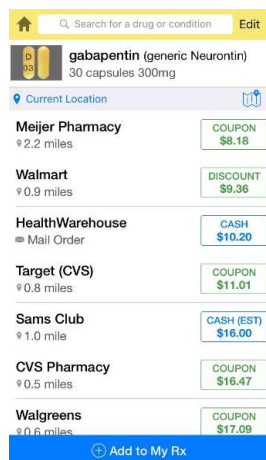
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**GoodRx**

**GoodRx**

iOS and Android

Free



18



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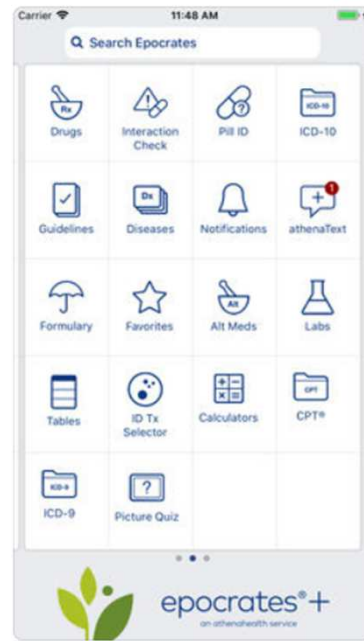


### Epocrates

iOS and Android

\$160-175 annual fee

- Drugs
- Interaction check
- Dosage calculators
- Guidelines
- Pill ID
- Notifications of changes in practice



19



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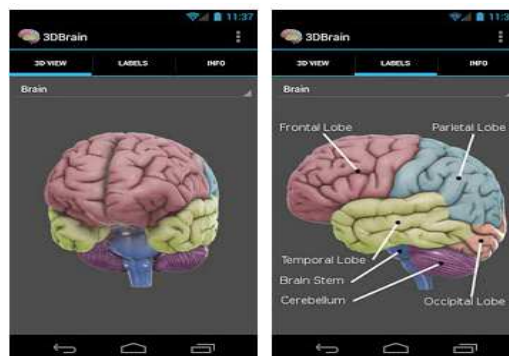


### 3D Brain

iOS and Android

Free

- Allows users to rotate and zoom around 29 interactive brain structures using the touch screen.
- Provides information on brain structure and function, disorders, brain damage, mental illness, case studies, and links to research



20



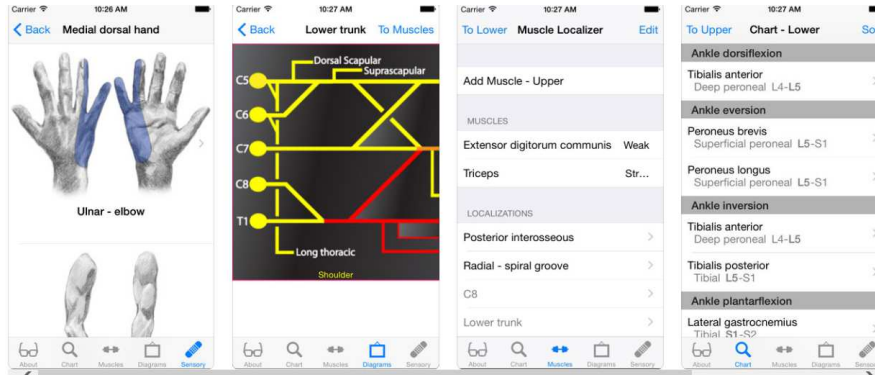
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## Nerve Whiz

iOS and Android  
Free

- Provides anatomical information about the peripheral nervous system, how to interpret clinical exams, muscles and sensory localizers, and recommendations for which muscles to test
- Includes nerve and muscle charts with pictures and diagrams



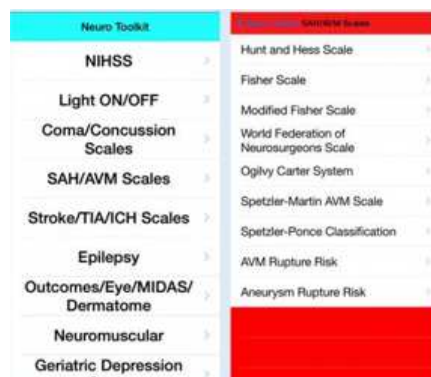
21



## Neuro Toolkit

iOS  
\$4.99

- Written by a vascular neurologist
- Commonly Used Neurology/Neurosurgery Grading Scales in One Place-Many with Prognosis



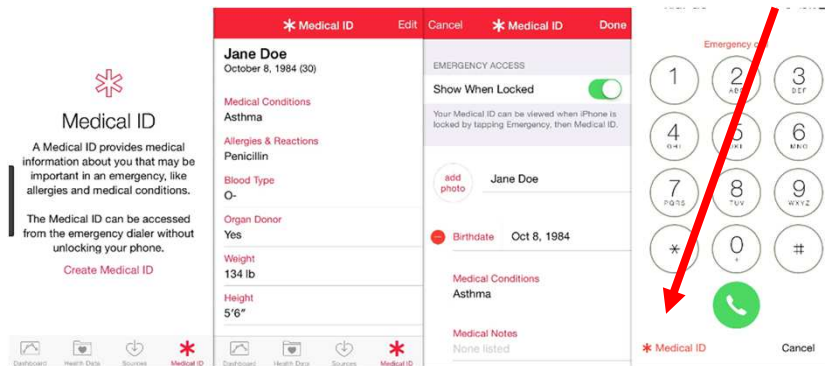
22



## Medical ID

iOS and Android  
Free

- Medical ID provides medical information about you that may be important in an emergency like allergies and medical conditions. The Medical ID can be accessed from the emergency dialer without unlocking the phone.



23

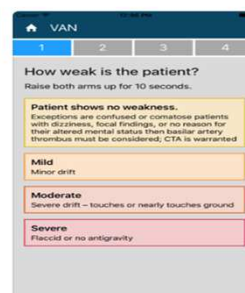
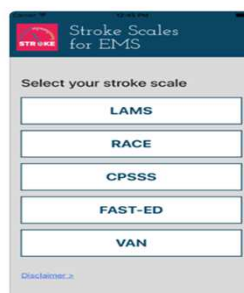


## The Stroke Scales for EMS

iOS and Android  
Free

- The Stroke Scales for EMS mobile app is a tool to help first responders and EMS personnel assess a patient's stroke severity.

Screenshots iPhone iPad



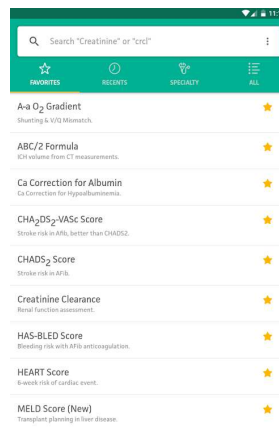
24



MD CALC

**MDCalc Medical Calculator Clinical Decision Support**  
iOS and Android  
Free

- MDCalc clinical decision tools support 50+ specialties including cardiology, critical care/ICU, emergency medicine, endocrinology, gastroenterology, hematology, hepatology, infectious disease, internal medicine, nephrology, neurology, obstetrics, oncology, orthopedics, and more.



25

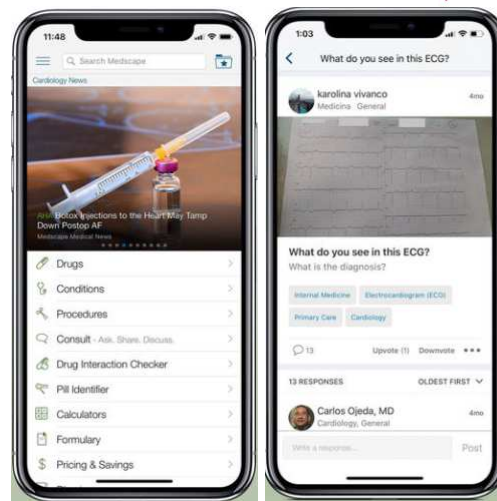
25



**Medscape**

iOS and Android  
FREE for most application  
However annual fee for advance uses

- Receive the latest news on:
  - \*FDA Approvals
  - \*Clinical trials
  - \*Safety concerns
- Look up drug monographs
- Detailed videos on essential procedures
- CME/CE credit, including pharmacology
- Consult field experts



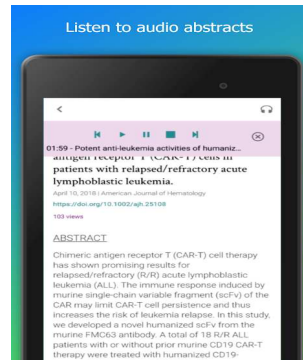
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26



**CASE**  
iOS and Android  
Free

- **Case** is a medical journal app for providers and researchers with a recommendation engine powered by a machine learning algorithm. Case makes it easy to read medical journal articles on your phone. Case currently supports 81 medical specialties.



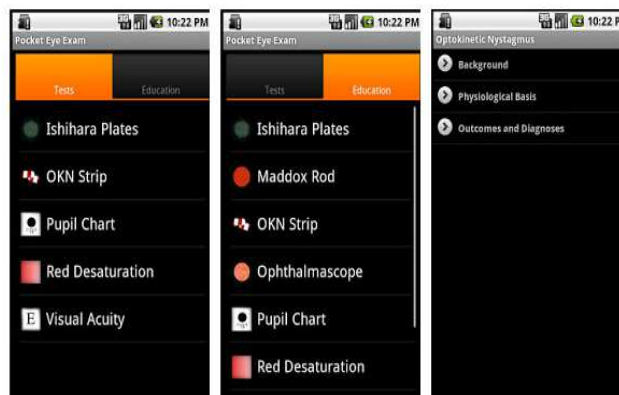
27



27




**Pocket Eye Exam**  
iOS and Android  
\$1.99



28




28




**Viz.ai**  
iOS and Android  
Paid

Automated Detection & Triage


## SYNCHRONIZED STROKE CARE



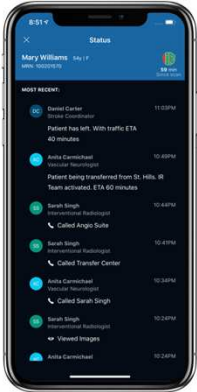
**Viz LVO**  
Automated detection of suspected LVOs using artificial intelligence



**Viz CTP**  
Automated CT perfusion mapping and analysis using artificial intelligence




**Viz VIEW**  
Mobile DICOM viewer for NCCT, CTA and CTP images



**Viz HUB**  
HIPAA-compliant calling, texting, and workflow visualization

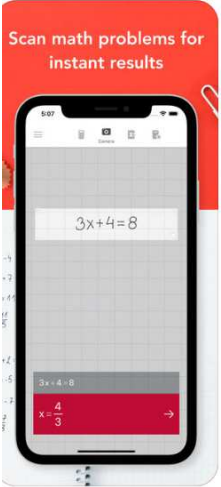
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29

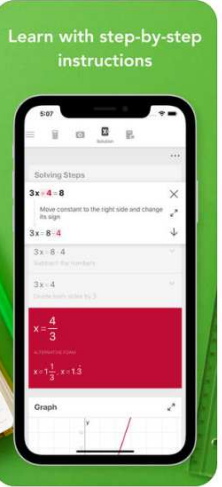


**Photo Math**  
iOS and Android  
Free


Scan math problems for instant results




Learn with step-by-step instructions



Edit using the smart calculator



Explore beautiful graphs



30





## Track EMS

iOS and Android  
Paid

- **EMS to Hospital** Mobile Communication App
- **Provides secure and efficient communication** with the ED and notifies team members
- **Eliminates radio** communication
- **Transfer** of EMS information in EHR
- Provides **immediate** electronic feedback to EMS



**Case Summary**

Name: John Test  
DOB: 01/15/1944 Age: 73 Gender: Male  
Point of Entry: Stroke  
Priority: 1  
Is patient awake?: Yes  
Is patient breathing?: Yes  
AVPU: Alert  
GCS: 13  
Past Medical History: HTN, MI  
Medications: Lisinopril, Nitro, ASA  
Allergies: NKDA  
Blood Pressure: 216 / 108  
Pulse: 108  
Respiration: 16  
Oxygen Saturation (%): 98  
Temperature (F): 98  
When was the last time in hours the patient was seen normal?: 2  
Facial Droop: Abnormal  
Arm Drift: Abnormal  
Speech: Abnormal  
Symptoms: Sudden Confusion  
Treatment Choice:  
Clinical Impression: LVO suspected

Facial Palsy:  
(1) Partial or complete paralysis

Arm Weakness:  
(1) Drift or some effort against gravity

Speech Changes:  
(2-3) Severe, global aphasia, or mute

Eye Deviation:  
(1) Partial

Denial/Neglect  
(1) Extinction to bilateral simultaneou...

**NEXT** **SEND TO HOLY FAMILY**

## STROKE Report (Case 1137 - John Smith)

Time Last Known Well:	Time	Total Minutes	Pre-Image:
Well:	11:36:00		
ED Off Load:	13:35:31		
CT Arrival:	13:49:34		
Lab Results:	13:49:45		
CT Results:	13:54:23		
Team Ready:	13:59:23		
En Route to Lab:	14:02:36		
Patient in Lab:	14:04:12	29	
MD Arrival:	14:01:16	26	
Procedure Started:	14:05:46	31	
Needle Inserted:	14:10:43	35	
Reperfusion Time:	14:15:21	40	
Team Available:	14:18:36		

Post-Image:

TICI Score: 3

Vessels:

MCA / M1 / M2 ☒ 80

ACA (A1) ☐

ICA ☐

Basilar ☐

PCA ☐

Other ☐

Clot Removed? ☐

Procedure Performed: Procedure 1

**Save** **Cancel**

31

31



## AANN

iOS and Android  
Free



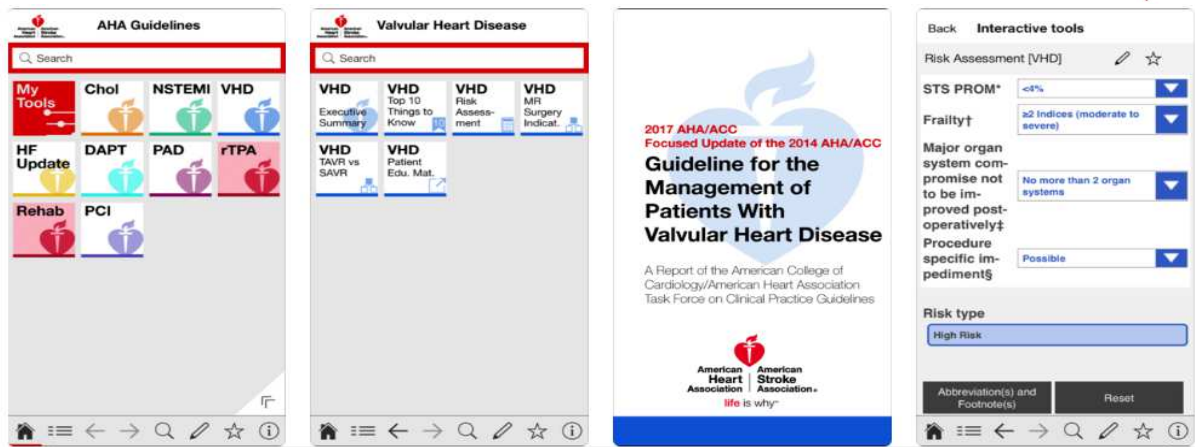
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32



## AHA Guidelines On-the-Go

iOS and Android  
Free



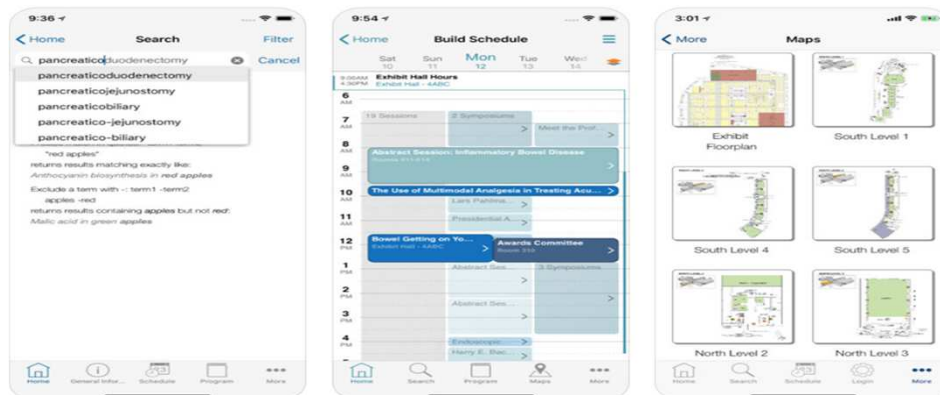
33



## AHA Conferences App

iOS and Android  
Free

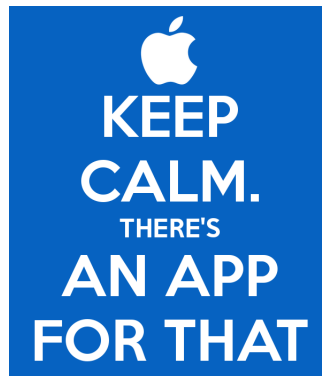
- TAKE NOTES AND EMAIL THEM AS PART OF YOUR TRIP REPORT FOR REFERENCE.
- EXHIBITORS, MAPS, RELATED CONFERENCE INFO.



34



34



Contact:

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Alicia Richardson: [arichardson2@pennstatehealth.psu.edu](mailto:arichardson2@pennstatehealth.psu.edu)

35



35

## TECHNOLOGY TRIVIA

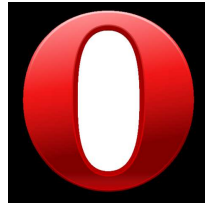
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36

## #2: WHICH WEB BROWSER IS DEVELOPED BY APPLE INC.?

- A. OPERA
- B. SAFARI
- C. CHROME



37

37

## #1: WHAT DOES "HTTP" STAND FOR?

- A. HYPERTEXT TERMINAL PROTOCOL
- B. HYPERTEXT TRANSFER PROTOCOL
- C. HYPERTEXT TRANSMISSION PROTOCOL



38

38

## WHAT DOES THE COMPUTER TERM “RAM,” STAND FOR?

- A. REVERSE ARCHITECTURE MEMORY
- B. RANDOM ACCESS MEMORY
- C. RELIABLE ACCESS MEMORY



39

39

## QUESTIONS?



40

40