

# Rx Updates

**New Guidelines, New Medications - What You Need to Know**

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- Background – scope and impact of heart disease and medication use in US
- Review what is new
  - Guideline updates for common cardiovascular conditions
  - New antithrombotic medications
- Discuss common patient problems
- Where to get help

# Objectives

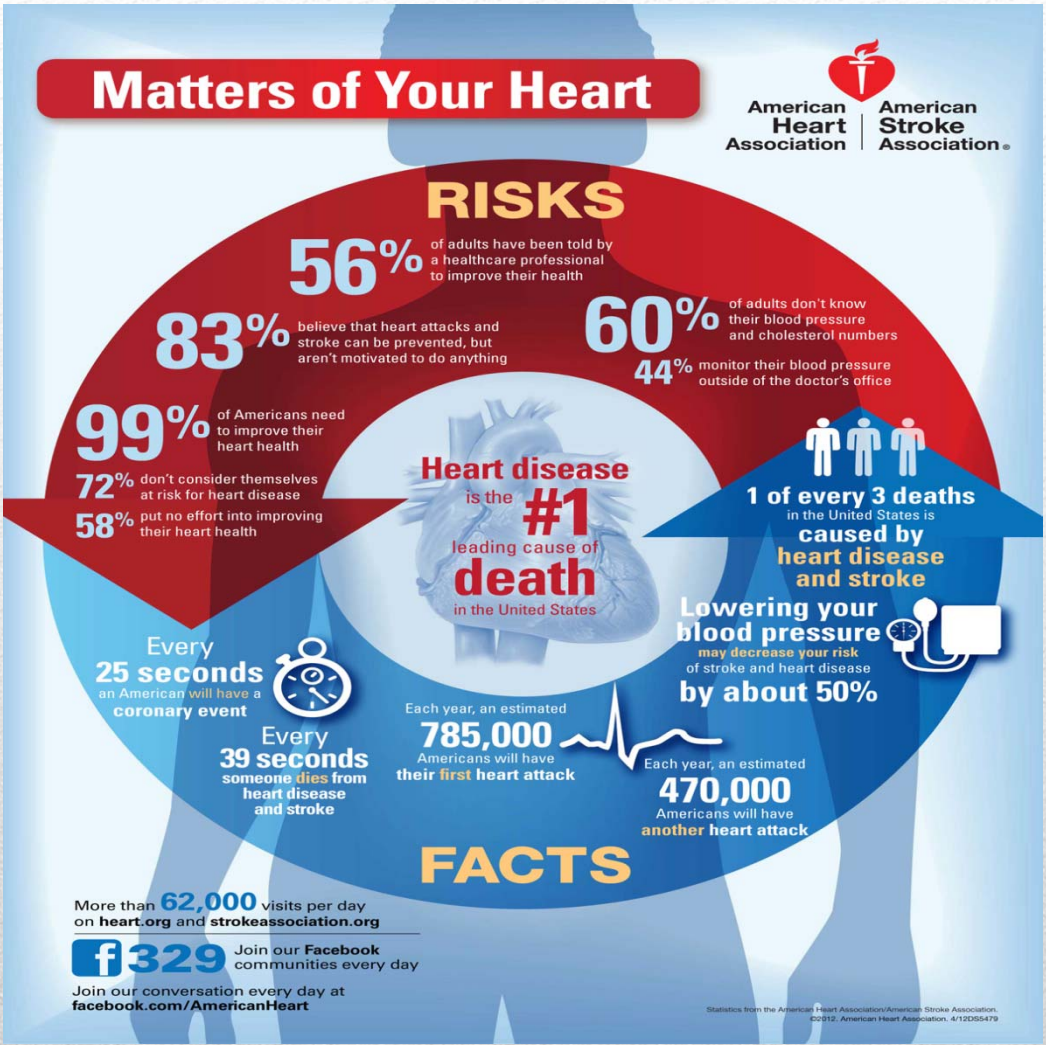
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**BACKGROUND**

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# The Problem

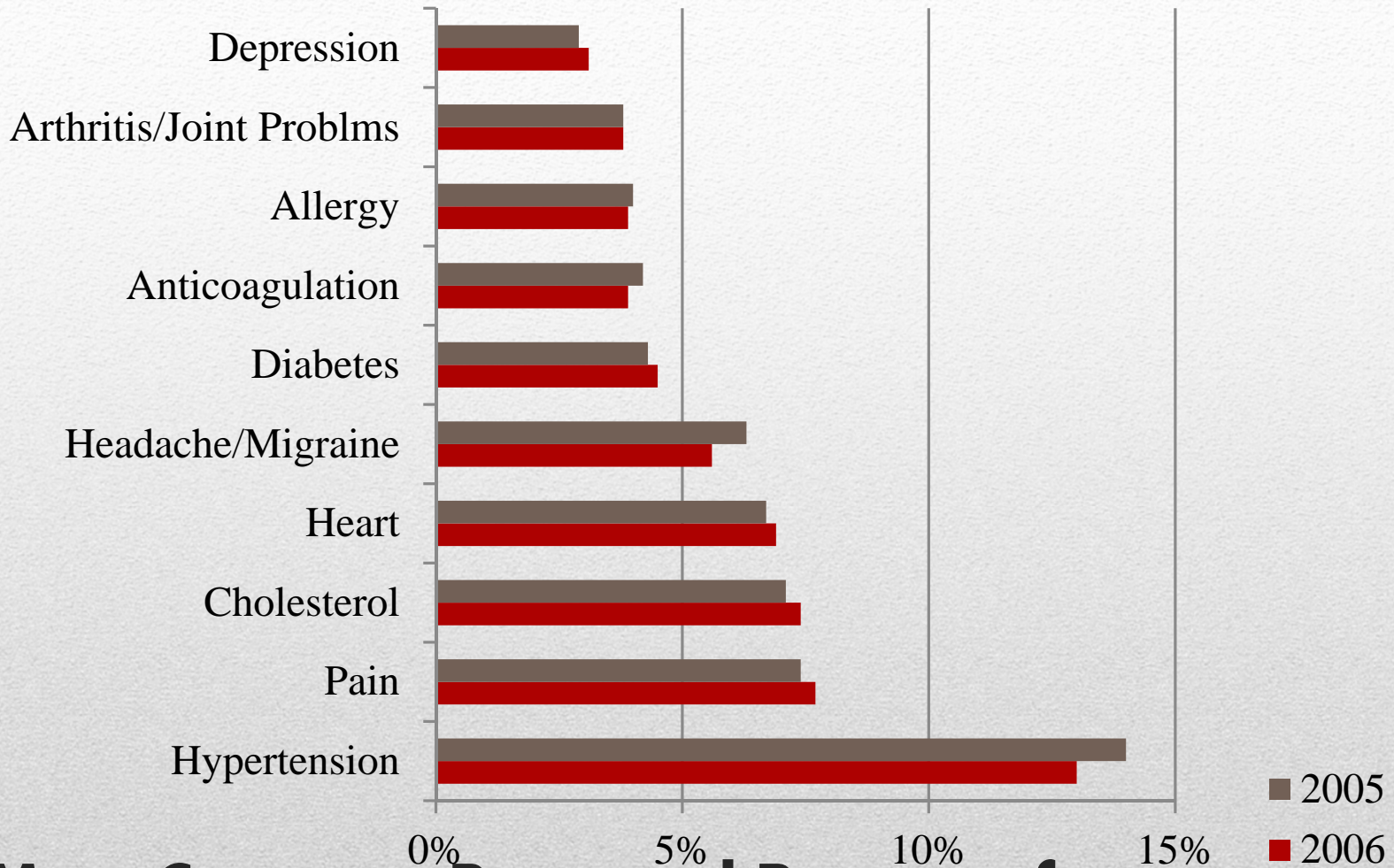


- Men and women aged 65 years or older continue to be the biggest consumers of medications:
  - Greatest change since 1998 = “Polypharmacy”
    - From 23% to 29% for use of 5+ medications;
    - From 6.3% to 12% for use of 5+ Rx medications.
- Two cholesterol-lowering drugs rank in the top ten most commonly used:
  - Atorvastatin (fourth overall)
    - The most frequently used Rx
  - Simvastatin (eighth overall)
- Among prescription drug users, 32% are also taking a herbal/natural supplement.

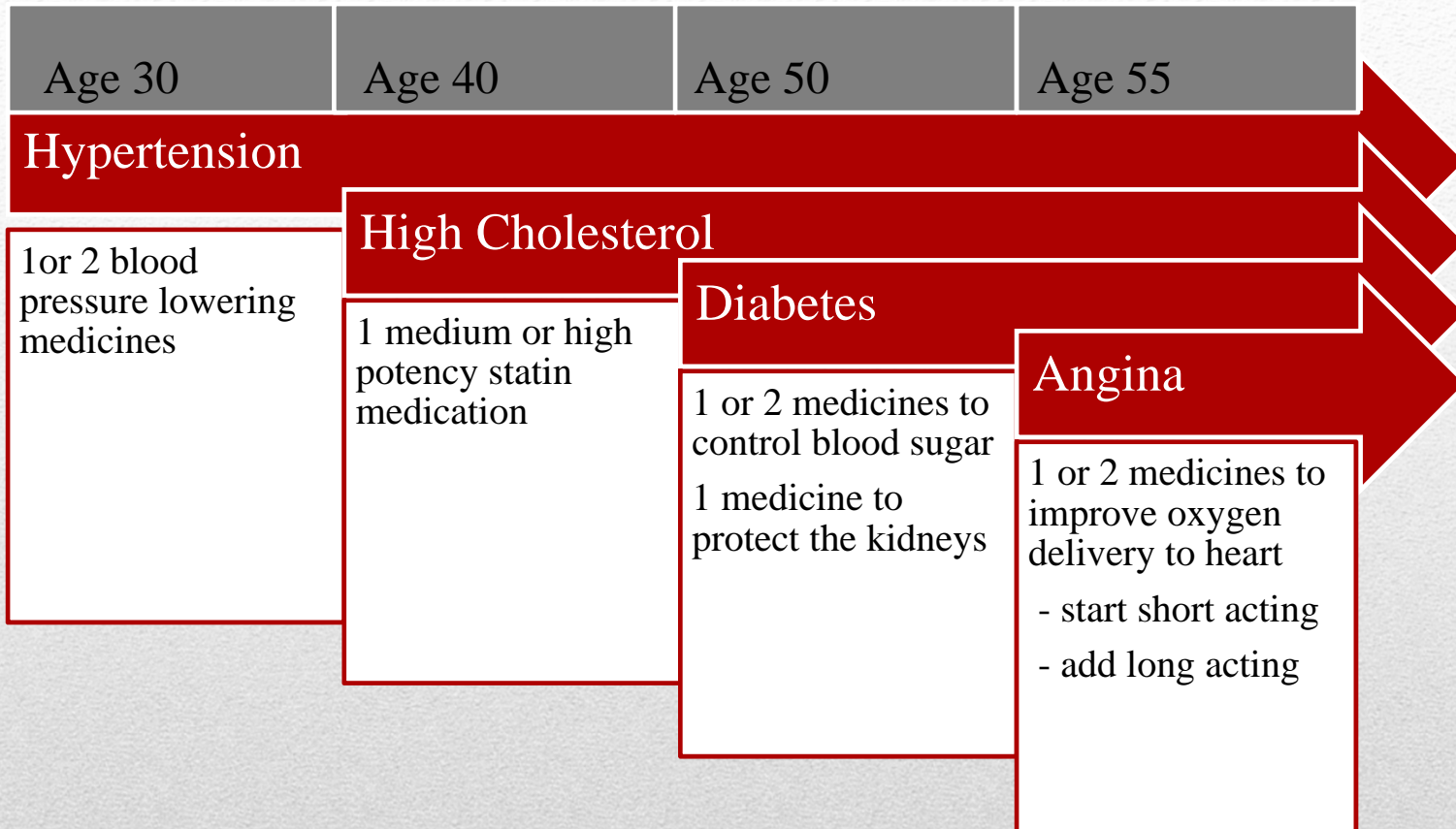


# Medication Facts

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# Most Common Reported Reasons for Medication Use



**Do I Really Need All These Pills?**

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# Discharge Medications after AMI/Stent



**Aspirin** - to prevent clotting  
**Antiplatelet** - to protect stent



**Statin** - to lower bad cholesterol  
- to decrease inflammation



**Beta blocker** – to improve oxygen delivery  
**ACE-I/ARB** – to prevent remodelling



**Sublingual nitrate** – to improve oxygen (rescue)

## Do I Really Need All These Pills?

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# **WHAT'S NEW**

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	<b>Guideline</b>	<b>Sponsoring Organization</b>
<b>HTN</b>	2014 Evidence-Based Guideline for the Management of High Blood Pressure in Adults	Panel Members Appointed to the Eighth Joint National Committee (JNC 8)
<b>Lipids</b>	2013 Guidelines: <ul style="list-style-type: none"> <li>- Assessment of Cardiovascular Risk</li> <li>- Treatment of Blood Cholesterol to Reduce Atherosclerotic Cardiovascular Risk in Adults</li> </ul>	American Heart Assn/ American College Cardiology
<b>Diabetes</b>	Standards of Medical Care in Diabetes - 2014	American Diabetes Assn
<b>CKD</b>	<u>2012</u> Clinical Practice Guideline for the Evaluation and Management of Chronic Kidney Disease <ul style="list-style-type: none"> <li>- Management of Blood Pressure in CKD</li> <li>- Lipid Management in CKD</li> </ul>	Kidney Disease Improving Global Outcomes
<b>Atrial Fibrillation</b>	2014 Guideline for the Management of Patients with Atrial Fibrillation	American Heart Assn/ American College of Cardiology/ Heart Rhythm Society
<b>Stroke</b>	2014 Guidelines: <ul style="list-style-type: none"> <li>- Prevention of Stroke in Patients with Stroke &amp; TIA</li> <li>- Prevention of Stroke in Women</li> </ul>	American Heart Assn/ American Stroke Assn

# New Guidelines

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# New Guidelines

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	<b>JNC7 (2003)</b>	<b>JNC8 (2013)</b>	<b>ASH/ISH (2013)</b>	<b>Disease Specific</b>
<b>Hypertension</b>	<140/90	<140/90	<140/90	--
<b>Heart Disease</b>	<140/90	--	<140/90	<140/90 ACC/AHA (2011)
<b>Diabetes</b>	<130/80	<140/90	<140/90	<140/80 ADA (2014)
<b>Kidney Disease</b>	<130/80	<140/90	<140/90	<130/80 w/ proteinuria, otherwise <140/90, KDIGO (2012)
<b>Elderly</b>	Not specified	<150/90 for those $\geq$ 60 yrs	<150/90 for those $\geq$ 80 yrs	SBP <140 for those 55 – 80+ yrs (SBP 140-145 acceptable in those >80 yrs)

# Blood Pressure Guidelines

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- **New blood pressure goals do not generally support lower targets**
  - Vary little by guideline
- **First-line antihypertensives have not changed**
  - **4 main classes**
  - May see specific agents prioritized for race (AA), complicated hypertension
    - or for diseases like kidney disease, diabetes, heart failure
- Blood pressure classifications have not changed

# Key Changes

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# Statin Benefit Groups

Pt with Clinical ASCVD


Pt with High Baseline LDL (>190)

Diabetics aged 40-75

Pt with Other Risk Factors

**2013 Blood Cholesterol  
Guidelines**

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- **Recommend getting patients on high or moderate dose statins**
    - Clinical trials consistently demonstrate benefit of maximally tolerated statin intensity
    - Goal-based treatment led to under-dosing of statins
  - **Don't recommend non-statin therapy in high risk individuals already on high intensity statins**
    - Not even if their LDL is not < 70.
  - **If a statin-intolerant, nonstatin drugs may be considered**

## **Key Changes**

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### Old Cholesterol Guidelines

- Patients with coronary heart disease benefit most
- Statins are preferred drugs
  - Get to LDL target
  - Clinical outcomes
- Focus on reaching target LDL
  - LDL < 70 (sometimes <100)
  - May add 2<sup>nd</sup> drug class
- Emphasize lifestyle change
- Some “at risk” patients need Rx

### New Cholesterol Guidelines

- Patients with coronary heart disease benefit most
- Statins are preferred drugs
  - Potency (higher preferred)
  - Clinical Outcomes
- Focus on reaching target dose
  - Lower LDL by >50%
- Emphasize lifestyle change
- Emphasize genetic disorders
- “At risk” patients may start Rx sooner

# Compare and Contrast

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Relative LDL-lowering Efficacy of Statin and Statin-based Therapies<sup>1</sup>

Lipitor	Lescol	Livalo	Mevacor	Pravachol	Crestor	Vytorin	Zocor	% LDL lowering
atorvastatin	fluvastatin	pitavastatin	lovastatin	pravastatin	rosuvastatin	simvastatin + ezetimibe	simvastatin	
	20		10	10				<30
	40	1	20	20			10	
	40 bid							30
10	80	2	40	40			20	38
20		4		80	5	10/10	40	41
40					10	10/20		50
80					20	10/40		55
					40	10/80		63
3A4	2C9	2C9	3A4	---	2C9 + 2C19	3A4	3A4	CYP

1. FDA Drug Safety Communication: New restrictions, contraindications, and dose limitations for Zocor (simvastatin) to reduce the risk of muscle injury. Safety Announcement 06/08/2011. Available from: <http://www.fda.gov/Drugs/DrugSafety/ucm256581.htm>.

# Statin Comparisons

## “Understanding Statin use in America and Gaps in Education”



# What About Side Effects?

- Inherited genetic disorder of lipid metabolism
- **Characterized by severely elevated serum cholesterol concentrations**
  - LDL and non-HDL elevated
    - LDL > 200-300
  - HDL low or normal
  - Triglycerides may be elevated (not always)
- High risk of early death from coronary heart disease
- Cascade screening (early diagnosis) critically important

# **Familial Hypercholesterolemia**

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- New definitions for atrial fibrillation
- New (refined) risk stratification tool
- **Recommendations for anticoagulation have changed**
  - Less of a role for aspirin
  - Warfarin or one of the new anticoagulant drugs preferred
    - dabigatran
    - apixaban
    - rivaroxaban


# Atrial Fibrillation Guidelines

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## Oral Anticoagulants for Atrial Fibrillation

Drug	Usual Dose	Advantages	Disadvantages	Cost
Warfarin (Coumadin®) - <i>Vitamin K antagonist</i>	2-10 mg daily	Long history Once daily Vit K reverses effect	Dose variability Diet restrictions Lab monitoring Drug interactions	\$ gen \$\$ Br
Dabigatran etexilate (Pradaxa®) - <i>Direct thrombin inhibitor</i>	150 mg twice daily	Better drug? (less bleeding/ Fewer strokes) No monitoring	No lab to measure extent of effect No antidote Adjust for kidney function Store in original bottle	\$\$\$\$\$
Apixaban (Eliquis®) - <i>Direct factor Xa inhibitor</i>	5 mg twice daily	Better drug? (less bleeding/ fewer strokes) No lab monitoring	No lab to measure extent of effect No antidote Adjust for kidney function, age, wt	\$\$\$\$\$
Rivaroxaban (Xarelto®) - <i>Direct factor Xa inhibitor</i>	20 mg once daily	Less bleeding Once daily No lab monitoring	No lab to measure extent of effect No antidote Adjust for kidney function	\$\$\$\$\$

# New Oral Anticoagulants

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- Newer anticoagulants appear to be as effective as warfarin (with less bleeding risk) for patients with nonvalvular atrial fibrillation
  - Warfarin is recommended for patients with atrial fibrillation and a mechanical valve, bioprosthetic valve, prior mitral valve repair, or mitral stenosis

# General Approach

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- Combination anticoagulation and antiplatelet therapy?
  - Eg. Warfarin plus aspirin and/or clopidogrel
    - Often used for high risk individuals
      - Balance benefit to the risk for bleeding
    - No clinical trials evaluating this
  - Eg. Newer oral anticoagulants plus aspirin?
    - 30-40% of pts in the recent clinical trials on low dose aspirin
- “Bridge Therapy”
  - Patients with prior stroke/TIA at high risk if anticoagulation interrupted
  - Generally recommended.
  - May be more complicated with newer oral anticoagulants

## Other Rx Issues

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# **FINAL THOUGHTS**

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- Physicians
  - Pharmacists
  - Patient Resources
    - Websites
      - Government
      - Private

# **Drug Information Resources**

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- You can't do it alone
- More opportunities to learn about drugs you take and participate in health care
  - Availability of internet
- Must talk to your doctor and pharmacist about drugs you take
  - Increased demands on providers
  - Increased demands on patients

## **Strategies for Patients**

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- To every appointment, carry list of all Rx, OTC drugs to
  - Include herbal and dietary supplements
- Ask questions
  - Drug name, dose, purpose
  - How, when, how long to take drug
  - Possible side effects and action needed
  - Possible drug interactions
- Ask for medication counseling
  - Legal responsibility of your pharmacist to offer
  - Many insurance companies pay for additional consultation
    - Medication Therapy Management services

# Physicians and Pharmacists

- Core components
  - Medication Therapy Review
  - Personal Medication Record
  - Medication Action Plan
    - Intervention
    - Follow-up
- Appropriate for patients
  - Multiple medications and/or disease states
  - Anyone interested in improving their drug use

# **Medication Therapy Management**

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- MEDLINEplus ([www.medlineplus.gov](http://www.medlineplus.gov))
  - Consumer oriented
  - Premier health database
- Healthfinder ([www.healthfinder.gov](http://www.healthfinder.gov))
  - Information on prevention & self-care
  - Drug interaction checker (DrugDigest)
- Drugs.com ([www.drugs.com](http://www.drugs.com))
  - Focus on drug action
  - Drug interaction checker

## **Recommended Websites**

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# **WHAT QUESTIONS DO YOU HAVE?**

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