

Ask your Pharmacist: A Galactosemia Approach to Calcium and other conditions

William F. Bell, Jr. R.PH, MBA
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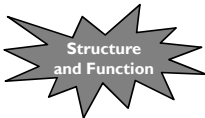


Your Prescription

- Informal talk!
- Calcium supplementation
- Other conditions which may require medications
 - Infections
 - Post-Menopausal females
 - ADD (Attention deficit disorder)
- How to choose a good Pharmacy and what questions to ask your pharmacist

Calcium

- Most abundant mineral in the body
- Essential for maintaining body's operation
 - Muscle function
 - Nerve transmission
 - Only 1 % of total Calcium needed for this
- Remaining 99% of Calcium stored in:
 - Bone
 - Teeth


Structure and Function

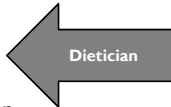
Calcium


- Optimal calcium intake
 - Maximize and maintain peak bone mass
 - 35 years of age
 - Galactosemic diet poses a problem
- Requirements increase during periods of rapid growth
- Supplemental intake appears to improve bone density in children and adults
- Area of controversy 2012
 - Postmenopausal females and low doses of Calcium/Vitamin D (1000mg/400IU) no effect on prevention of fractures

Catherine Gordon Children's Hospital
Boston 2009

The Challenge

- Limited sources of Calcium
 - Dairy
 - Non-Dairy
 - Vegetables
 - Soy/Fortified drinks
 - Dietary supplementation
 - Calcium carbonate
 - Calcium citrate
 - Prescriptions
 - Ingredient list
 - Lactose free

 Dietician

 Pharmacist

The Concerns

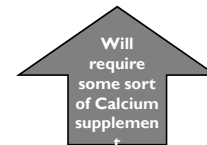
- Osteopenia
- Osteoporosis
 - Increased risk for fracture
- Rickets
 - "Osteomalacia"
 - Vitamin D deficient
- Paget's Disease
 - Certain sections of bone
 - Older adults

Age	Calcium mg/day	Vitamin D IU/day
4-8	800	200
9-18	1300	200
19-50	1000	200
51-70	1200	400
70+	1200	600

*Source: U.S. Department of Health and Human Services. The 2004 Surgeon General's Report on Bone Health and Osteoporosis: What it Means To You. p 14. [Download PDF Here](#)

Risk Factors

- Cow's milk allergy
- Postmenopausal woman
- Vegetarians/Poor diet
- Lactose-intolerance



Supplementation

- Calcium carbonate
 - Most common
 - 40% Calcium by weight
 - Taken with food
 - More GI side effects (Gas, constipation, bloating)



Supplementation

- Calcium Citrate
- "Citracal"
- Easier to digest
- 21% of Calcium by weight



Supplementation



Ingredients

- How do I know?
- How do I find out?
 - Internet
 - Local Pharmacist
- Risk vs. Benefit
 - Antibiotics
 - Consult your physician

Lactose

- Pharmaceutical ingredient (inactive)
 - Tablets
 - Capsules
 - Oral Suspensions
 - Adjunct in dry powder inhalers
- Ingredients change
 - Change in manufacturer
- Alternative dosage forms
 - Patch
 - Liquid
 - Oral disintegrating tablets (ODT)

Asthma/Allergy Medications

Lactose	Lactose-Free
Advair®	Ventolin HFA®
Flovent Diskus®	Flovent HFA®
Pulmicort Flexhaler®	Symbicort®
Zyrtec/Certrizine Oral Tablets®	Zyrtec/Certrizine liquid®
Claritin/Clarinet®	Redi-tabs/Liquid®

Stimulants

Lactose	Lactose-Free
Ritalin®	Vynase®
Adderall®	Adderall XR®
Concerta®	Methylin (Methylphenidate)®
Focalin XR®	Datyrana (Methylphenidate Patch)®
	Strattera®
	LiquADD® (Liquid Dextroamphetamine)

HRT

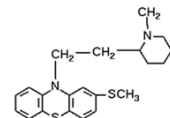
Lactose	Lactose-Free
Premarin®	Estrogen/Estradiol Transdermal (Vivelle®/Climara®)
Provera® (Medroxyprogesterone)	Ortho-Evra®
Demulen® (OC)	Nuva-Ring®

Ask your Pharmacist

- Can you?
 - Too busy/Hate going in there!
 - Can only speak to Technician?
- Does he/she know you by name and reason for the “ingredient issue?”
- Take time to talk, go extra step?
 - Call MD
 - Call Manufacturer
- Alert you if generic manufacturer had changed, possibly changing ingredients?

Ask your Pharmacist

- Ask to see package insert on stock bottle
 - PPI= Patient package insert
- Do not refer to PDR as this is not current
- Ingredients found under description section
 - Look for picture of chemical structure
- FOSAMAX tablets for oral administration contain the following inactive ingredients: microcrystalline cellulose, **anhydrous lactose**, croscarmellose sodium, and magnesium stearate



Conclusions

- Adequate Calcium supplementation poses a challenge in the galactosemic diet
- Understand what type of supplementation is needed and at what dose
- Utilize your Pharmacist for medication needs, questions, and clarity on ingredient issues
- Choose Pharmacy and Pharmacist most comfortable with

Questions



William F. Bell, Jr.
wbelljr70@verizon.net
267-312-1182