

## Over-the-Counter Dietary Supplements/Herbals/Botanicals Physician Information Sheet

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Prepared 6/01; reviewed 7/04

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### Potentially dangerous; DO NOT RECOMMEND

#### Ephedra or Ma Haung (FDA banned 2004)

Products with more than 8 mg/serv (total of 24 mg/da) EPHEDRA. Also known as Ma Huang.

- Contain ephedrine, a stimulant. Raises blood pressure; can cause rapid heart rate.
- Some brand names include: Metabolife; Metabolite, Metabosurge, MetaboLeap, MetaboValu, MetaboLift, Metabolize
- People taking stimulants such as large doses of caffeine, or medications like Ritalin should be advised not to take ephedra compounds.
- Be aware some “ephedra-free” products have derivatives like.

#### PPA or phenylpropanolamine (FDA requested voluntary removal November, 2000 – associated with stroke)

*Mechanism of Action: appetite suppressant; effect up to 2 weeks*

- **Patients who may benefit:** Complains of excessive hunger at outset of weight reduction; May help compliance
- **Evidence:** hundreds of published papers; FDA approval for efficacy prior to DSHEA when FDA lost its authority in this area; increase weight loss by 5%
- **Possible side effects/concerns:**
  - Increased blood pressure
  - Possible adverse effects on CNS
  - Increased risk of stroke, young – middle age women, within 3 days of taking product
- **Dosage:**
  - 25 mg before meals; Maximum 75 mg/day

#### Dinitrophenol (DNP).

Products with this ingredient are available through Internet sales. It is being marketed to body builders and for weight loss. At least one death of an individual who took 600 mg on each of 4 days has been reported. It is an agricultural pesticide that was banned from diet pills in 1938 because of toxic effects to the liver, kidney and nervous system.

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## Products that have SOME demonstrated efficacy

### Chromium picolinate

*Mechanism of Action: improve impaired glucose tolerance*

- **Patients who may benefit:** With known or suspected insulin resistance and low chromium dietary intakes
- **Evidence:**
- **Possible side effects/concerns:**
  - Theoretical concern for toxicity
- **Dosage:**
  - Safety demonstrated at up to 1,000 mcg/day. Usual dosage 200 mcg
- **Suggested brands/costs:**
  - Check consumerlab.com
  - Eckerds Chromium picolinate, 200 mcg 2 cents each
  - Note that chromium comes packaged with other combinations: chromium and ephedra; chromium and chitosan. Combinations are more expensive.

### Chitosan (solid or pill only) also known as Fat Magnets, Fat Blockers

*Mechanism of Action: dietary fiber that binds fat soluble substances and fat; prevents fat absorption*

- **Patients who may benefit:** Attempting to reduce fat intake
- **Evidence:** Small studies have shown some efficacy but concern about fat soluble nutrients and phytochemicals; a randomized, double blind trial found no benefit and no harm (EJCN 1999;53:379-381)
- **Possible side effects/concerns:**
  - Gas, bloating, diarrhea
  - Needs multiple vitamin-mineral supplement, not at meals
  - Contraindicated for persons with shellfish or iodine allergies
- **Dosage:**
  - Follow label instructions; usually say three servings a day along with meals
  - Fat Trapper 60 cents/da; Fat Binder 60 cents/da; Chitosan 60 cents/da
- **Suggested brands/costs:**
  - Check consumerlab.com

### Calorie controlled drinks, bars, meals

*Mechanism of Action: controlled portion/calorie intake*

- **Patients who may benefit:** All who are attempting weight loss
- **Evidence:** Small proprietary studies from manufacturers making products (e.g. Slimfast, Balance, Healthy Choice, Weight Watchers)

- **Possible side effects/concerns:**
  - None. No long term concerns in replacing foods/beverages with these products
- **Dosage:**
  - Follow label instructions
- **Suggested brands/costs:**
  - Slimfast drinks and bars = \$1.39 – 2.50/serving
  - Weight Watchers, Healthy Choice
  - Atkinson bars 230 calories = \$2.59

### **Products with NO demonstrated efficacy**

- Aminophylline Cream (Thigh High, Belly Buster). Concern for skin reactions.
- Glucomannan. Could affect absorption of other meds
- Pyruvate. Commercial supplements have < 1 g/capsules; would need 30 g/da to match results in published studies. Very expensive in that dosage.
- Garcinia cambogia. Active ingredient hydroxycitric acid (HCA). Toxicity demonstrated in animals
- Carbohydrate cutter. Proposes to block the digestion of carbohydrate
- Caffeine. Requires dosages over 300 mg/da which also leads to restlessness, nervousness, tachycardia, nausea, insomnia, anxiety
- Capsaicin. Seen 10% increase in energy expenditure in humans; perhaps helpful in maintenance
- Kelp, carrageenan, seaweed, barley green. Supposedly helps with iodine deficiency and thyroid function.
- Bromelain. Enzyme from pineapple.
- “detoxifying” “purifying” “colon cleansing” products
- Cellasene. Mix of herbs, lecithin, and fish oil by Rexall Sundown. Marketed to Reduce cellulite. One unpublished study showed thigh reduction.