#### Treatment for Chest Pain



#### Lifespan Cardiovascular Institute

Rhode Island Hospital • The Miriam Hospital Newport Hospital

Delivering health with care.®

The Center For Cardiac Fitness
Cardiac Rehab Program
The Miriam Hospital

#### Chest Pain Treatment

- Medical
  - Beta-blockers
  - Calcium channel blockers
  - Nitrates
- Mechanical
  - PCI
  - CABG

# Medical Therapy

- Goals supply vs. demand
  - Decrease resting/exercise heart rate
    - Medications
    - Training effect
    - Stress reduction
    - Knowledge
  - Increase blood flow
    - Medications
      - Nitrates
      - Cholesterol reduction
    - Collateral development

## Medical Therapy

Acute vs. Chronic

- Acute
  - Multiple causes of pain
    - GERD, muscles/bones, lung disease
    - Angina
  - Nitrates, Aspirin, Blood Thinners
- Chronic
  - Medications
    - Beta blockers, Ca<sup>++</sup> channel blockers, ACE/ARB, Nitrates, Cholesterol lowering, Anti-platelet agents
  - Mechanical interventions

### Mechanical Therapy

- No effect on demand only on supply
- Increase blood flow
  - PCI "Percutaneous Coronary Intervention"
    - Stents
      - Bare metal
      - Drug-eluting
    - POBA
    - Rotational atherectomy or "roto"
    - Thrombectomy (clot removal)

## Mechanical Therapy

- Increase supply
  - CABG
    - Arterial conduits
    - Venous conduits
    - Off pump/beating heart

#### Medical Therapy after Mechanical Intervention

- Control of risk factors
  - Hypertension
  - Increased cholesterol
  - Diabetes
- Prevent re-occlusion
  - Aspirin
  - Plavix/clopidogrel