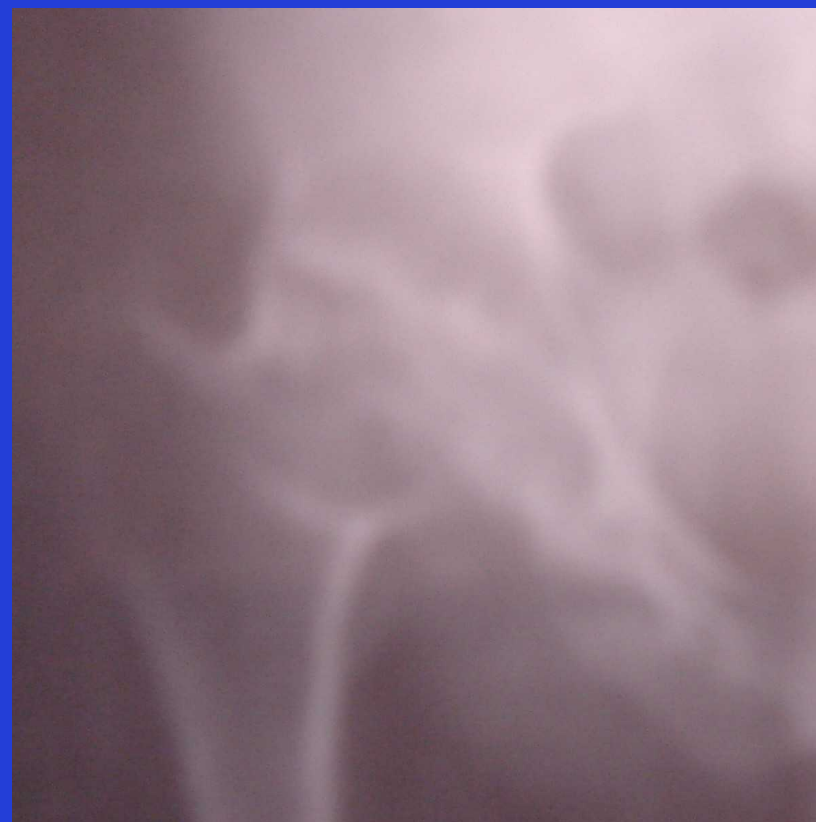


# **STICKLER SYNDROME**

## **Hip and Knee Arthroplasty**

**M. E. Cabanela, M.D.**  
**Professor of**  
**Orthopedic Surgery**  
**Mayo Clinic**  
**College of Medicine**  
**Rochester, Minn.**



# **STICKLER SYNDROME**

## **Joint Problems**

- **Hypermobility**
- **Enlargement**
- **Stiffness**
- **Pain more often in lower extremities**

# **TOTAL HIP ARTHROPLASTY**

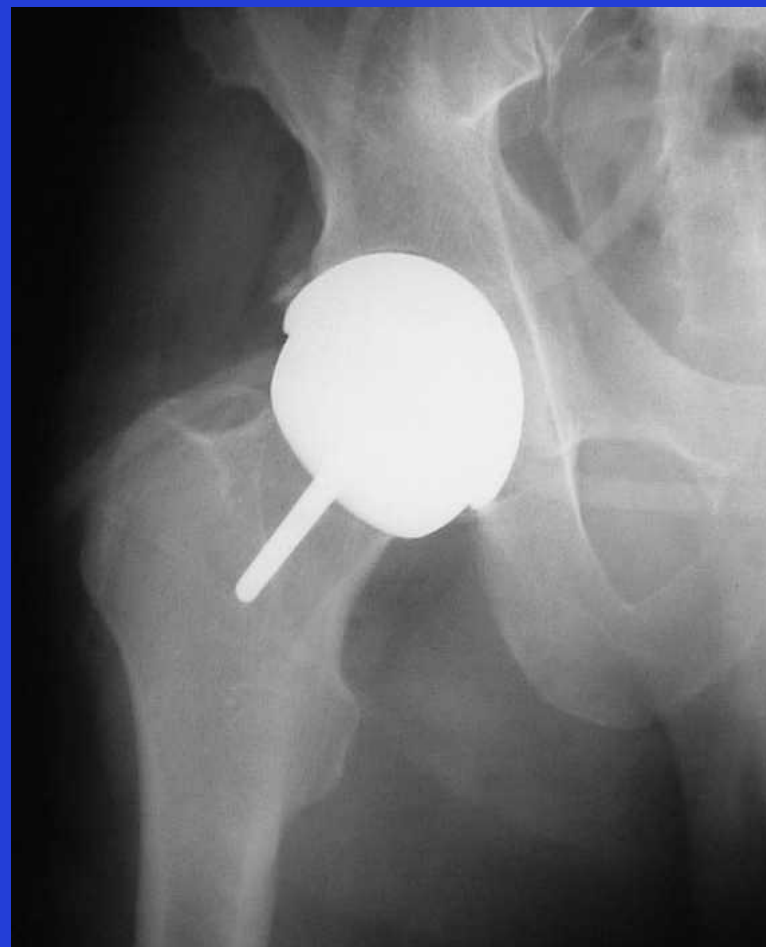
**The replacement of both sides of the joint with artificial materials**

# TOTAL HIP ARTHROPLASTY

- **Conventional**
- **Resurfacing**

# RESURFACING

**Generally not  
indicated**



# TOTAL HIP ARTHROPLASTY Fixation

- **Cement**
- **Biologic (uncemented)**
- **Hybrid**

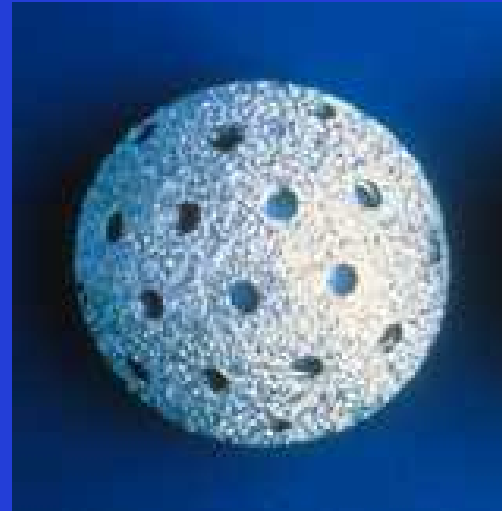
# TOTAL HIP ARTHROPLASTY Fixation

- **Cement**
- **Biologic  
(uncemented)**
- **Hybrid**

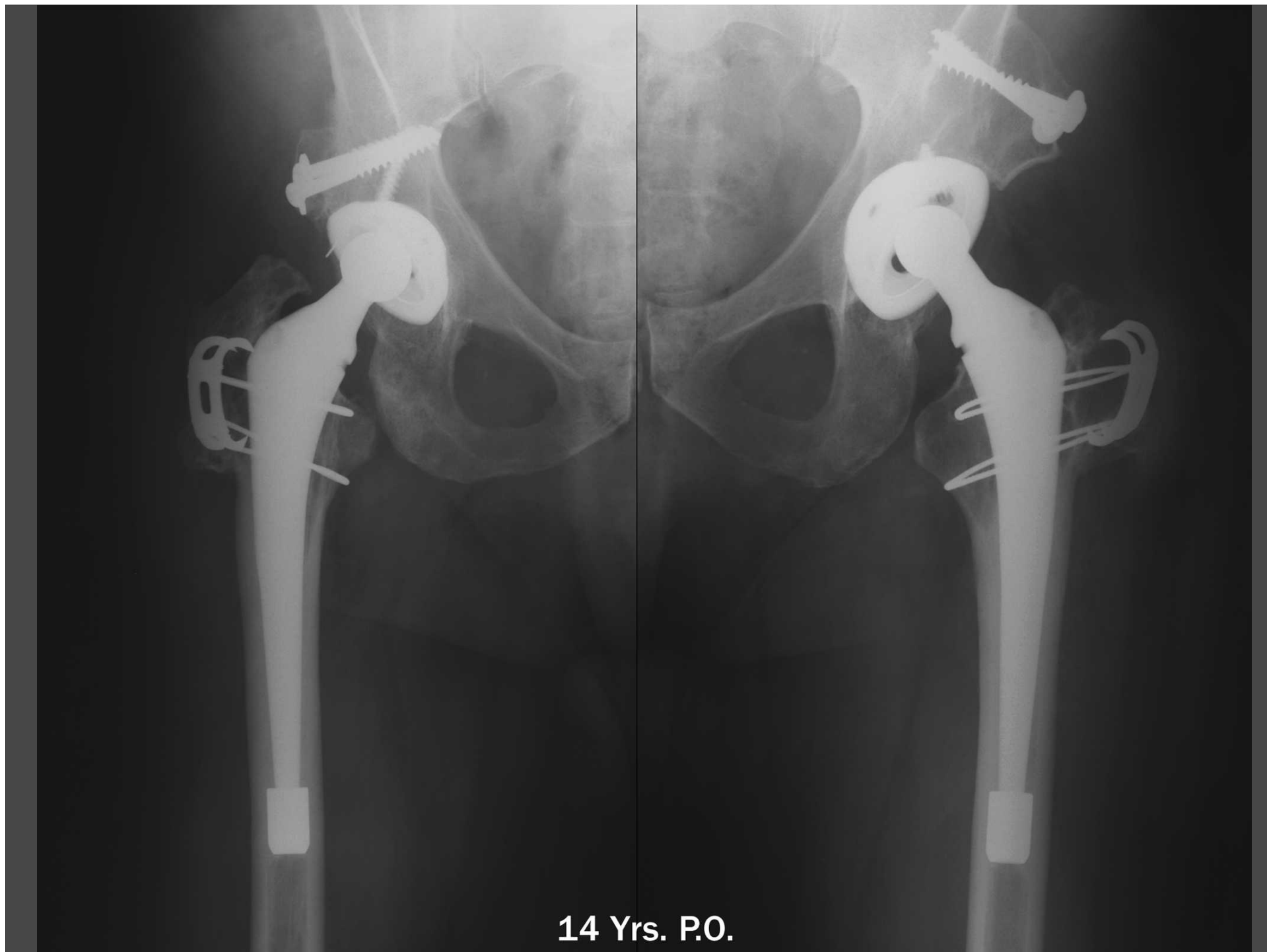


# TOTAL HIP ARTHROPLASTY Fixation

- Cement
- **Biologic  
(uncemented)**
- Hybrid



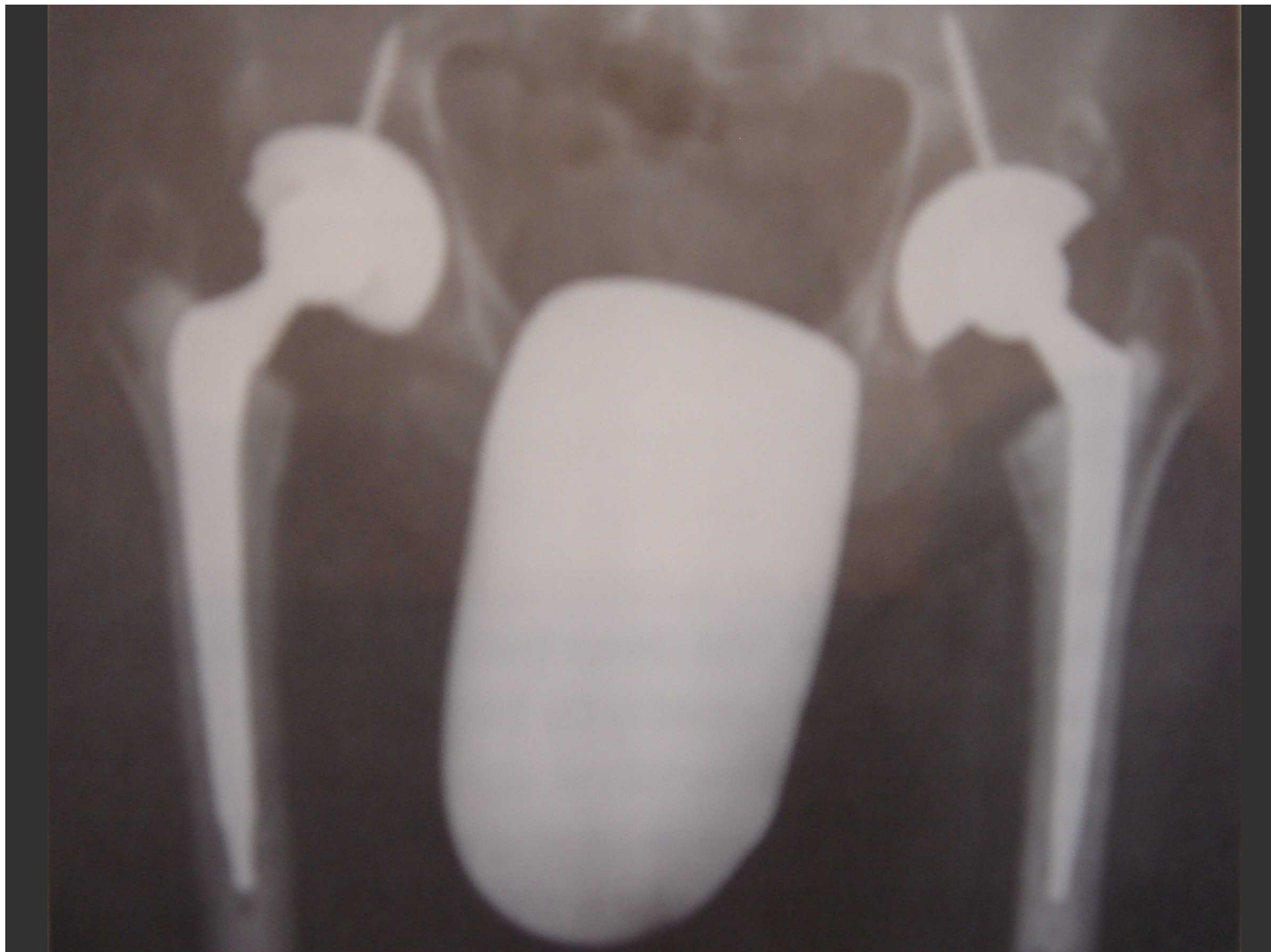






20 yrs. po





# TOTAL HIP ARTHROPLASTY

## What have we learned?

- Results are durable
- Soft tissue repair essential
- Prosthetic head diameter has changed
- Fixation issue is solved
- Better complication management
- Better revision techniques and results
- **Wear and osteolysis are the long term problem**
- Wear solutions may bring new problems

# **TOTAL HIP ARTHROPLASTY**

## **Bearing Surfaces**

- **Metal - Polyethylene**
- **Ceramic - Polyethylene**
- **Ceramic - Ceramic**
- **Metal - Metal**

# ALTERNATIVE BEARING SURFACES

## Options

- **Metal-on-metal**
- **Ceramic-on-ceramic**
- **Highly cross-linked polyethylene**



# BEARING SURFACES

## Ceramic-Ceramic

### Advantages

- Lowest wear
- No allergy

### Disadvantages

- Fractures
- Squeaking



# BEARING SURFACES

## Metal-Metal

### Advantages

- Low wear
- No fractures

### Disadvantages

- Hypersensitivity reactions
- Elevated Cr-Co ions in plasma and red cells



# BEARING SURFACES

## Metal-Polyethylene

### Advantages

- Old, predictable
- Very low wear today

### Disadvantages

- Wear - osteolysis



# **TOTAL HIP ARTHROPLASTY**

## **Surgery**

- **1-2 hr operation**
- **3-5 days hospitalization**
- **Usually not very painful**
- **Easy rehabilitation**

# **TOTAL HIP ARTHROPLASTY**

## **Anesthesia**

- **Regional – spinal**
- **Psoas (lumbar plexus) block for postop analgesia**

# **TOTAL HIP ARTHROPLASTY**

## **Recovery**

- **Walker / 2 crutches 4-6 wks**
- **Some precautions**
- **No physical therapy**

# TOTAL HIP ARTHROPLASTY Expectations

- 95+% satisfaction
- 20+ yrs longevity
- Ability to walk distances
- Ski, horseback riding, bike, light tennis: **yes**
- Running, jumping, basketball, volleyball: **no**

# TOTAL HIP REPLACEMENT Risks

- Infection <1%
- Nerve injury <0.3%
- Blood clots
- Dislocation 1 %
- Leg length discrepancy