

## »» Future of Orthopedics 2008

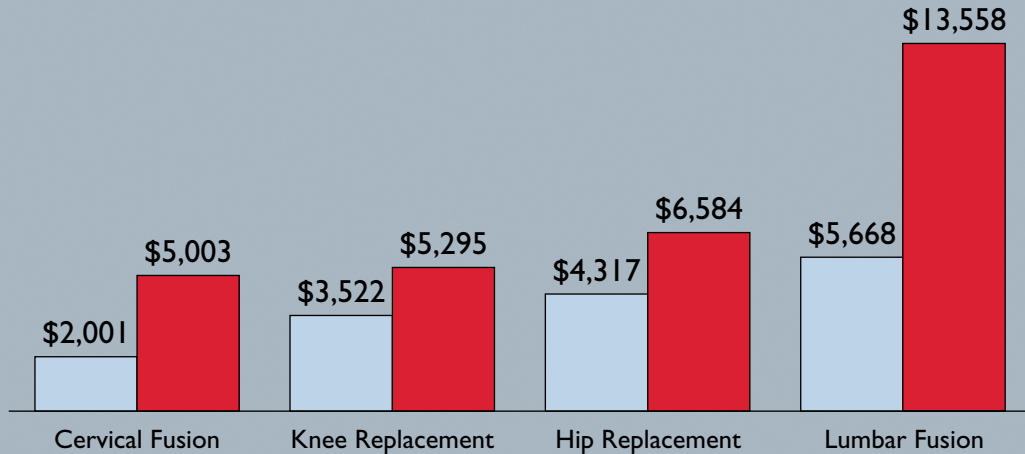
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*Optimal Approaches for Technology Management*

# A Clear Trend

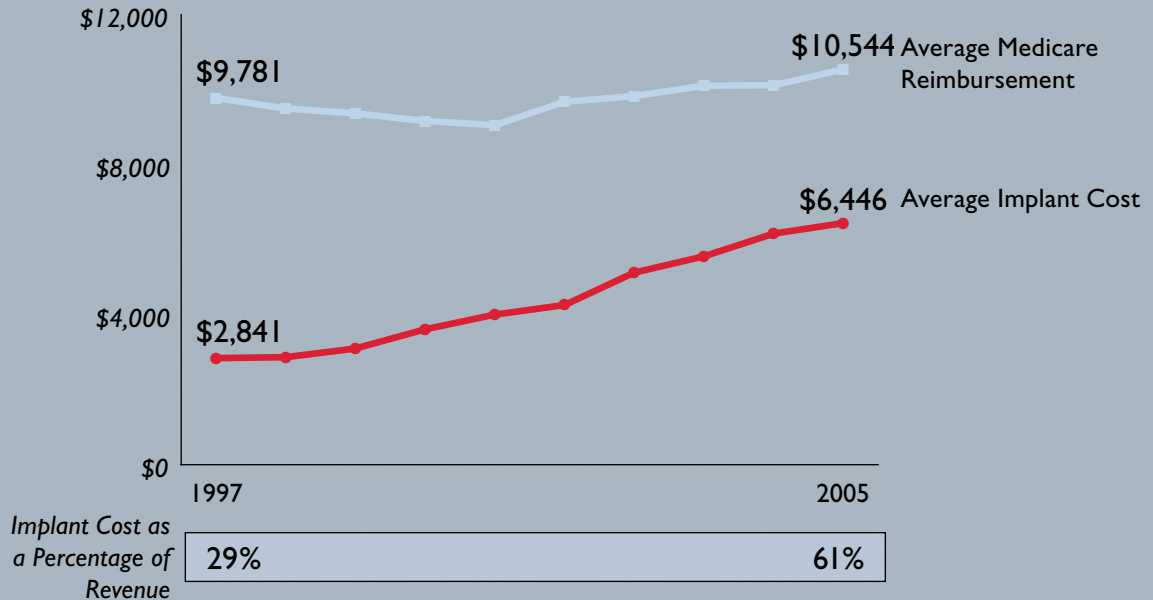
## Orthopedic Implant Cost per Case

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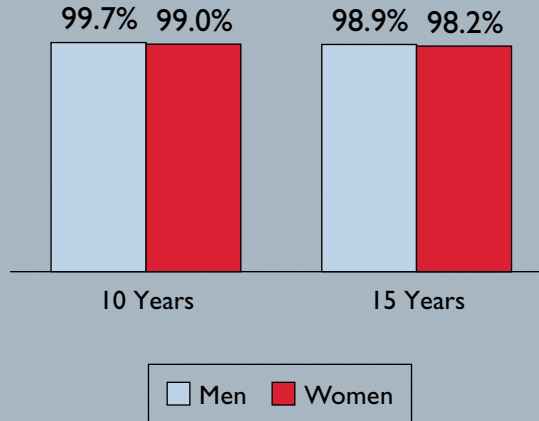
# Consuming the Whole Pie

## Per Case Financial Analysis, Hip Replacement



# Is There a Problem Here?

## Long-Term Total Knee Implant Survivorship



# Paying for Marketing Cachet?



## Total Knee Replacement Implant Cost

Average DRG Reimbursement

\$10,544

\$5,247

Average Selling Price, Standard Knee

\$11,500

119% price increase

List Price, Gender-Specific Knee

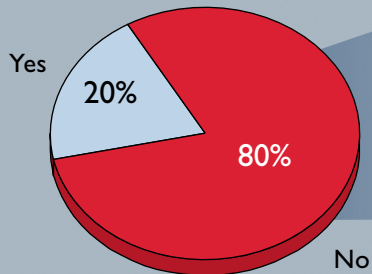
**Zimmer Gender Knee Solutions**

# Intense Brand Loyalty

Orthopedic Surgeon Survey, 2007

n=25

*"If asked by your hospital to switch  
implant manufacturers, would you?"*

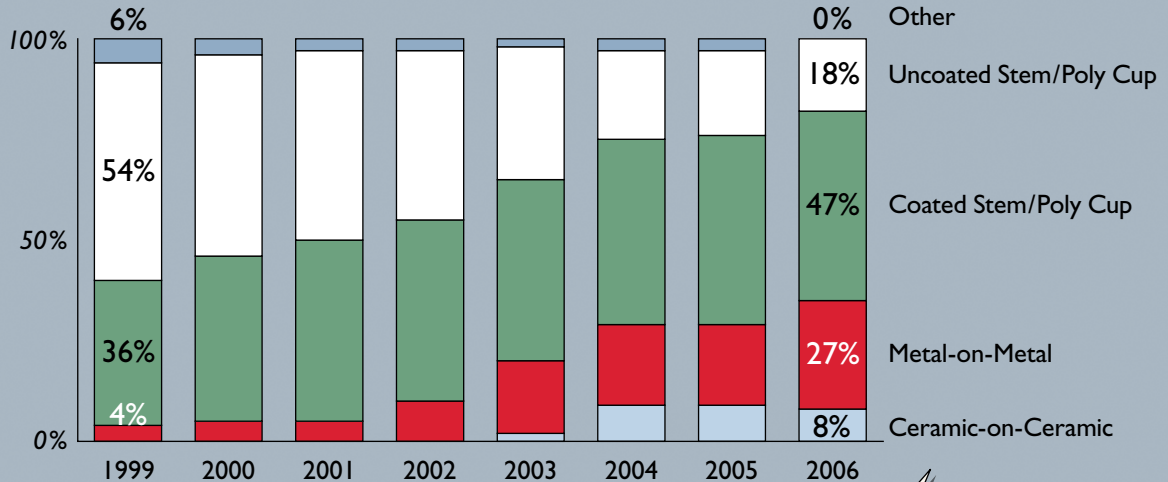


## Reasons Given

- Comfort/familiarity with product
- Learning curve of new product
- Success of current product
- Gives hospital too much control

# Expensive Taste in Hips

Implant Utilization, 2001–2006

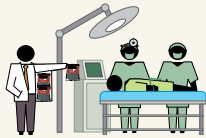


“Super-premium” implants now account for 35% of the market

# Too Close for Comfort?

## Common Settings for Surgeon-Vendor Interaction

### In the Operating Room



Rep serve as project advisors, technical assistants

### In the Conference Room



Many surgeons consult with device companies, often earning lucrative fees

### On the Golf Course?



Sales reps often develop close personal ties with physicians

Spectrum of Legal/Ethical Concern

Less  
Concerning

More  
Concerning

# Looking to Change Their Image

## Common Device Manufacturer Value-Added Services

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### **Coding and Billing Training**

Educating coders on what and how to bill procedures and devices



### **Reimbursement Updates**

Online access to latest reimbursement information



### **Clinical Outcomes Data**

Access to clinical trial outcomes and registries when available



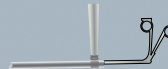
### **Marketing Support**

Brochures and marketing materials to increase demand for service



### **Inventory Management Support**

Working with hospital on consignment or supply ordering



### **Surgical Case Support**

On-call technical support during surgical cases

# The Next Several Years

## Top Orthopedic Technologies to Watch, 2007–2012

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**Technology** Population specific implants



Higher-durability surfaces



Spinal disc and nucleus replacement



Dynamic stabilization



Surgical navigation

### Hospital Impact

Higher implant pricing

Higher implant pricing

Higher implant pricing

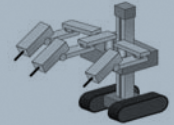
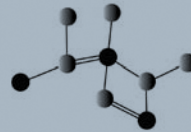
Higher implant pricing, potential market expansion

Additional time per case, capital expense

# The Distant Horizon

Top Orthopedic Technologies to Watch, 2012–2022

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**Technology**

“Smart” implants

Tissue engineering

Gene therapy for cartilage, bone degeneration

Active robotics

**Hospital Impact**

Higher implant pricing, or monitoring business?

Higher implant pricing, or new gene engineering business

New lab, surgical competencies needed

Additional time per case, capital expense