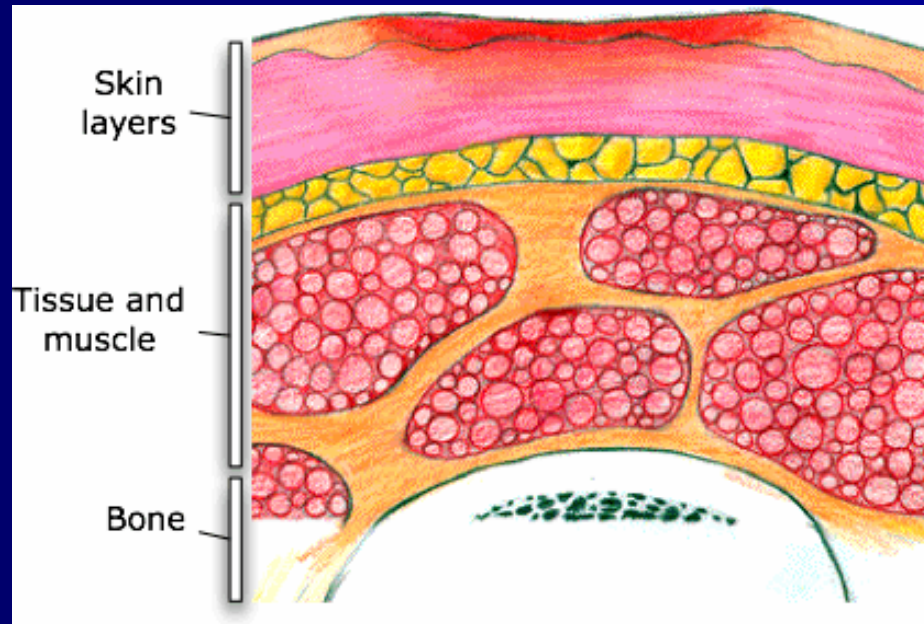


# Nutrition and Wound Care



Pat Balkwill RD Windsor Regional  
Hospital

# Preventing pressure ulcers the goal is Zero

- Kathy Duncan October 2007
- Conduct PU admission assessment
- Reassess risk for all clients daily
- Inspect skin daily
- Manage moisture
- Optimize nutrition and hydration
- Minimize pressure

# Objectives

- Identify risk factors that contribute to under/ mal nourished state
- Strategies to address these factors
- Discuss nutrients involved in wound healing
- Sources of these nutrients

## ■ Anorexia of Aging

- Physiological decline in food intake
- Decreased physical activity
- Decreased metabolic rate
- Average male 1321 kcal
- Average female 629 kcal
- Requirement changes

# Risk factors

- Social
- Shopping and cooking
- Economic
- Societal messages
- Education/ Facilitation



- Psychological
  - Community living > age 65
  - 29 % wt loss cause depression
  - 9.1 % uncontrolled Diabetes mellitus
- Anxiety and Paranoia
- Cognitive Changes
- Dementia

# Biological

- Smell
- Taste
  - enhance the flavours
- Fundus
  - 6 small meals



# Oral health and Dysphagia

- Dentition issues
- Denture issues
- Dysphagia 30 – 40% of Long-term care residents





- Gastrointestinal issues
  - Decreased hydrochloric acid production
  - Constipation, diarrhea, indigestion, nausea, vomiting
  
- Medications

# Nutrition Interventions

## Registered Dietitian

- Assess needs
- Diet history and current intake
- Route and extent of losses
- Barriers
- Coexisting disease states
- Anthropometric Biochemical
- Goals and wishes client/SDM

- Body weight
- Reliable, valid, inexpensive, noninvasive
  - High risk when weigh loss is
    - 5% in 1 month
    - 7.5 in 3 months
    - 10 % in 6 months



- Hydration
- Water solvent
  - Carries nutrients
  - Carries waste to kidney
  - Hydrates wound site
  - Aides in O<sub>2</sub> perfusion



# Fluid losses

- Exudates and large surface wounds
- Emesis
- Frequent loose stools/laxatives
- Large Urine out put
- Fistulae
- Topical negative pressure therapy
- Elevated temperature

- Frequent offering meal snack and medications
- All types milk, juice, soup and WATER
- Jell-O, popsicles, sherbet, ice chips
- Caffeine allowed

# Energy

- 25 to 40 kcal / kg
- Inflammatory and Proliferative phase
- Carbohydrates and Fat
  - Homo milk and high fat yogurt
  - Glucose for phagocytosis
  - Fat to carry vitamin A E K D

# Protein

- Inflammatory
- Proliferative
- Remodeling
- Losses in exudates
  
- Albumin





# Key dietary protein sources

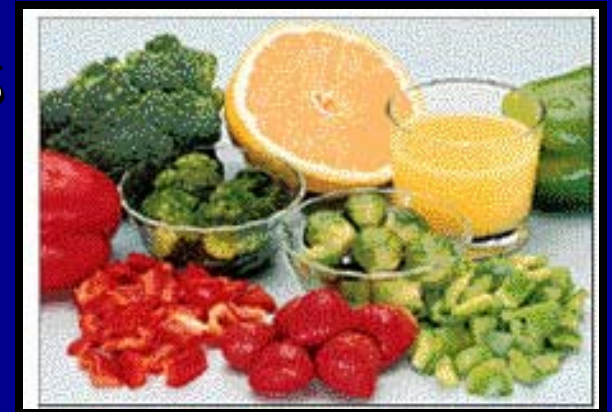
- Beef, pork, poultry, fish, dairy products, eggs
  - Legumes, whole grains, nuts
- Examples: cottage cheese  
skim milk powder/protein powder  
cream soups, milkshakes  
peanut butter, baked beans

# Vitamin C

- Immune response
- Antioxidant
- Hydroxylation
- Collagen cross linkages
- Tissue regeneration
- Angiogenesis blood vessel development

# Dietary sources

- Oranges / grapefruit and juice
- Fortified apple juice
- Strawberries Cantaloupe
- Broccoli/ Brussels sprouts
- Bright coloured peppers
- Tomato
- Potatoes



# Zinc

- Cofactor in over 100 different enzyme systems
- Vital for epithelialization a
- Vital for immune function
- Dietary sources: meat, eggs, seafood, whole grains, nuts, legumes

# Iron

- Hemoglobin
- Antibody production
- collagen DNA synthesis
- Anemia etiology
  - Dietary sources
    - Heme
    - Non Heme



# Vitamin A

- Enhances Tissue regeneration
- Cofactor in collagen synthesis
- Enhances cell mediated immunity
- Promotes granulation tissue formation
- Facilitates epithelialization
- Food Sources



- Canada's Food Guide
- Registered Dietitian Consultation
- Assess risks of supplementation
- Determine appropriate supplementation
- Questions

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