Elimination Pattern; Bowel and Bladder

Functions of the Urinary System
-regulates volume & composition of extracellular fluid.
-Urine formation: Filtration, re-absorption, secretion.
-Urine Excretion: Descriptive words (Voiding, micturition, urination.)

Characteristics of Normal Urine
-Volume per void- Adults- 250-450mL, minimum urinary output= 30ml/hour
-Color; light yellow to amber. State of hydration, medications, menstruation affects color.
-Clarity: Normally transparent, clear without sediment. Urine may be cloudy if it sits > one hour.
-Odor: aromatic, generally the more dilute the urine the fainter the odor; Ammonia scent
  9After sitting one hour.) Medications, foods and infection affect odor.
-Pattern of urinary amount: Adults 1500cc/24 hr  
  Pediatrics= 50-500 cc/24 hr.
-Culture insensitivity is done to decide what medication will help the infection.

Factors affecting Urinary Patterns
-Fluid intake
-Loss of Body fluid
-Nutrition
-Body Position
-Psychological Factors
-Urinary flow obstruction
-Infection
-Hypotension
-Neurological injury
-Decreased muscle tone
-Pregnancy
-Surgery, anesthesia, immobility, edema.
-Medications (Diuretics)
-Urinary diversions.

Altered Urinary Function
-Dysuria- painful voiding
-Polypuria- excessive urine excretion in absence of increased fluid intake.
-Oliguria- decreased formation/Excretion of urine
-Anuria: Less than 100cc/24 hr.
-Urgency: subjective feeling of being unable to control urge to void.
-Frequency: Frequent Voiding
-Nocturia: Voiding during normal sleeping hours.
-**Hematuria**: Blood in urine
-**Pyuria**: Pus in urine.

**Subjective Data**
- Normal patterns
- ADL activities
- Privacy/dignity issues
  - culture
  - Economics

Risk Identification:
- Previous problems/Concerns/Issues (UTI, renal calculi, prostate.)

**Dysfunctional**: Ask open-ended questions: Start with “Have you noticed any problems with voiding lately?” “Do you have pain/burning on urination?” “Any urine color changes?”

**Objective Data**
- Voiding pattern
- Urine Assessment
  - Visual Inspection, color
  - Odor
  - Consistency, amount, clarity, sediment, blood/pus
- 24 hr I&O, specific gravity.
- Weight
- Evidence of edema.

**Diagnostic Test**
- Collection of urine specimens for: Urine analysis, random urine, clean catch (mid stream), 24 hour urine, specimens from foley catheter.
- Specific gravity
  - Normal Values- 1.010 to 1.025 g/ml

Nursing Diagnosis
- Stress Incontinence- related to high intra-abdominal pressure as evidence by accidental involuntary urination.
- Impaired urinary elimination.

**Bowel Elimination**
**characteristics of normal Feces**
- 75% Water, 25% solid
Color- brown-foods & medications may affect the odor.
- Odor: Bacterial decomposition of proteins
-Soft consistency: cylindrical in shape
-Amount: 150-300g/24 hours

**Factors Affecting Bowel Elimination**
- Nutrition (Fiber content, types of food.)
- Food intolerances (impacts digestion & elimination, cramping, diarrhea)
- Fluid Intake
- Activity/Exercise
- Body position during defecation.
- Lifestyle
- Pregnancy

**Paralytic Ileus** - Lose of motility in the intestine

**Subjective**
- Bowel Pattern
- Usual Daily Pattern - time, frequency, color, odor, consistency.
- Flatulence
- Any recent changes in bowel habit?

- Diarrhea related to frequent tube feedings as evidenced by loose liquid.

**Activity-Exercise Pattern**

**Bathing and Hygiene**
- Overall sense of well-being
- Removes excess oil, bacteria & perspiration from skin surfaces.
- Promotes circulation
- Provides opportunity for skin assessment.
- Provides opportunity for assessment of nails, hair, oral, teeth and gums.
- Feeding: ability to feed oneself, independence regarding food choices, ability to chew and swallow.
- Toileting
- Dressing & grooming.

**Culture beliefs-values**
- Family and community influences
- Bathing patterns and use of deodorants.
- Privacy
- Gender: Care provided by some/different sex.

**Environment**
- Lack of access to facilities (Bathing/Cooking)
- Level of economic resources
- Homelessness
- Migrant Workers
- Disability access

**Emotional**
- Emotional factors can result in self-care deficits (inability to perceive reality)

**Cognitive Ability**
- Decreases level of consciousness
- Confusion
- Sever disabilities, head trauma, injuries (often totally dependent on others.)

**Surgery/Pain**
- Amount of assistance with self-care varies
- Effects of anesthesia
- Level of pain impacts willingness to move, participate in self care.

**Neuromuscular Function**
1. Swallowing, ambulation
2. Fine motor control
3. Hx of stroke, spinal cord injury, nervous system disorders.

**Other Variables to consider**
- Impact on activities of Daily Living.
- Independence/dependence
- Lifespan considerations

**Risk Factors**
- Pain, immobility, neuromuscular impairment, decreased mental alertness, sensory deficits.

**Mobility**
- The ability to move freely within the environment
- Changes in mobility create subtle psychological effects.
- Most people associate mobility with health
- Immobility occurs when a person cannot move their entire body or a specific body part.
- Degrees of immobility (Partial, full, weakness)
- Temporary (fracture) or permanent stroke.

**Factors Affecting Mobility**
- Lifestyle and Habits
- Intact musculoskeletal system: Fractures, joint problems, inflammation, tendonitis.
- Nervous system control: Smooth coordination of movement (MS, parkinsons.)
Altered Mobility: Manifestations
- Decreased muscle strength and tone
- Lack of coordination
- Altered gait
- Potential for falls
- Decreased joint flexibility

Impact of immobility on function
- Muscle atrophy & weakness
- Contractures and joint pain/joint immobilization
- Foot drop
- Increased cardiac workload
- Thrombus Formation and embolism

Negative Nitrogen Balance (balance between protein breakdown and protein synthesis)
- Anorexia (lack of movement, institutional food)
- Osteoporosis
- Impaired immunity (immune system weakened)

Pressure Ulcers
- Urinarary

Sleep & Rest Disturbances
- Inability to fall and stay asleep, doze frequently, decreased REM sleep, stress
- Decreased coping & Stress tolerance