Chapter 21

ASSISTING WITH SPECIMENS

- Specimens (samples) are collected and tested to prevent, detect, and treat disease.
- The doctor orders what specimen to collect and the test needed.
- All specimens sent to the laboratory require requisition slips.

URINE SPECIMENS

- The random urine specimen
  - The random urine specimen is collected:
    - For a routine urinalysis
    - Any time during a 24-hour period
  - Many people can collect the specimen themselves.
    - Weak and very ill persons need help.

- The midstream specimen (clean-voided specimen or clean-catch specimen)
  - The perineal area is cleaned before collecting the specimen.
  - To collect the specimen:
    - The person starts to void into a receptacle.
    - Then the persons stops the stream of urine.
    - A sterile specimen container is positioned.
    - The person voids into the container until the specimen is obtained.
    - You may need to position and hold the specimen container in place after the person starts to void.

- The double-voided specimen (fresh-fractional urine specimen)
  - The person voids twice.
    - The first time the bladder is emptied of “stale” urine.
    - In 30 minutes, the person voids again.
  - Fresh-fractional urine specimens are used to test urine for glucose and ketones.

- Testing urine
  - The doctor orders the type and frequency of urine tests.
  - Testing for pH
    - Urine pH measures if urine is acidic or alkaline.
    - Normal urine pH is 4.6 to 8.0.
    - A routine urine specimen is needed.
  - Testing for glucose and ketones
    - The diabetic person may have glucose and acetone (ketone bodies, ketones) in the urine.
    - Urine is tested for glucose and ketones.
    - The doctor uses the test to make drug and diet decisions.
    - Double-voided specimens are best for these tests.

- Testing for blood
  - Hematuria means blood in the urine.
  - Blood that is not seen is occult blood.
  - A routine urine specimen is needed.
- Using reagent strips
  - Reagent strips have sections that change color when they react with urine.
  - To use reagent strips, follow the manufacturer's instructions.
    - Do not touch the test area on the strip.
    - Dip the strip into urine.
    - Compare the strip with the color chart on the bottle.

STOOL SPECIMENS

- Stools are checked and studied for blood, fat, microbes, worms, and other abnormal contents.
- The stool specimen must not be contaminated with urine.
  - The person uses one receptacle for voiding and another for a bowel movement.
- Some tests require a warm stool.
  - The specimen is taken at once to the laboratory or to the storage area for transport to the laboratory.

SPUTUM SPECIMENS

- Mucus from the respiratory system is called sputum when expectorated (expelled) through the mouth.
- Sputum specimens are studied for blood, microbes, and abnormal cells.
- The person coughs up sputum from the bronchi and trachea.
  - It is easier to collect a specimen in the morning.