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International Standard
Colored Edition

CBS Handbook on

Clinical Examination & History Taking

A Nursing Approach

Special Features

- First Book on Clinical examination & History taking based on Indian scenario for nurses
- Reviewed by the Top Nursing Faculties/Luminaries PAN India
- An Easy-to-Carry compendium
- **6 New Chapters** on Various Systems and Communication & Documentation added
- **600+** Line Arts, Real-time Photographs and Tables
- **50+** Real-time Case Studies on Various Diseases/Conditions
- Special Population Consideration Covered Exclusively

2nd
Edition

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A Nursing Approach



Second Edition



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Preface to the Second Edition

This pocket handbook on Physical Examination is specially made for the beginners and health care professionals. It is a brief handy textbook which lays emphasis on preliminary physical examination, technique of physical examination, interview taking skill, analyze and correlate normal findings with abnormal findings and also to look for other possible findings. It is just a small tool to recall different basic points while doing physical examination. It gives them a rough or basic path to get familiar with the art of history taking and its different aspects required for medical field. The techniques and skills of history taking, interview are explained in the simplest form so that everybody should understand the basic part of physical examination. It helps in extracting knowledge from the patient and provides an indepth analysis of physical examination. It mainly consists of the normal and abnormal conditions or findings that one may find during the process of physical examination, and most importantly, it gives methodology and aids the user for reaching the conclusion for a particular patient.

This book is not an illustrated version of history-taking process but rather it gives a preliminary and basic review in the simplest form for students users to have basic knowlegde about the etiology and its correlation. As the preliminary examination is like a foundation or it is the path to reach the most probable diagnosis for a particular disease, this book is an effective tool for the students which they may use to recall the information easily and efficiently. It is the best pocket guide with brief and accurate information for finding the unpredictability in history taking.

It consists of 19 chapters which will help students and users to understand:

1. Contents of health history
2. Techniques of examination
3. Normal and abnormal parameters
4. Technique of analyzing and interpreting other alternate possibility for a specific patient and specially new evolving diseases like COVID-19.

This second edition of the book is designed on the basis of the valuable inputs and suggestions received from the students and

other readers. This book will be immensely helpful in upgrading the existing knowledge and will provide the readers with latest techniques that are being implemented in the physical examination.

The main goal of this book is to make the students highly skilled in physical examination and also in the analysis of the clinical findings. Five more chapters have been added to enhance the efficacy of this pocket book.

Babita Sood



Nursing Knowledge Tree

An Initiative by CBS Nursing Division

Preface to the First Edition

This *CBS Handbook on Clinical Examination and History Taking (A Nursing Approach)* is specially made for the beginners students and health care professionals. It is a brief and handy textbook which lays emphasis on preliminary physical examination, technique of physical examination, interview taking skill, analysis and correlation of normal findings with abnormal findings, and also on other possible findings. It is just an effective tool to recall different basic points while doing physical examination. It gives students a basic idea to get familiar with the art of history taking and its different aspects required for medical field. The techniques and skills of history taking and interview are explained in the simplest form so that everybody should understand the basic part of physical examination. It helps in extracting knowledge from the patient and provides an in-depth analysis of physical examination. It mainly consists of the normal and abnormal conditions or findings that one may find during the process of physical examination, and most importantly, it gives methodology and helps the user in reaching the conclusion as far as a particular patient is concerned.

This handbook is not only an illustrated version of history taking process but also gives a preliminary and basic review in the simplest form for the users to have basic knowledge about the etiology and its correlation. As the preliminary examination is like a foundation or it is the path to reach the most probable diagnosis for a particular disease, this book provides students with an effective tool which they can use to recall the information easily and efficiently. It is the best pocket guide with brief and accurate information for finding the unpredictability in history taking.

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- Contents of health history
- Techniques of examination
- Normal and abnormal parameters
- Techniques to analyze as well as interpret other alternate possibility for a specific patient and specially new evolving diseases, like COVID-19.

Babita Sood

Special Features of the Handbook

System-wise **History Taking** proforma describes how to interview the patient and collect health history under various parameters.

HISTORY TAKING

Past Health History

A comprehensive summary of the patient's past health is an important part of our data. First of all, prepare the list of disease and the age, at which he/she has suffered. Take data under the following heads:

- General suggestions
- Probe about current problems
- Ask questions
- Discuss medication with old patients
- Collect information by asking about family history
- Collect information about functional status
- Consider patient's life and social history



Nursing Consideration

- Before taking the history of present illness you should be aware of all the normal parameters of the body.
- Any aberration from the normal parameters should be closely monitored with the probable cause of the condition noticed.
- When the preliminary examination depends upon the state and condition of the patient itself then it is reliable, otherwise look for other source to collect for information.

At various places **Nursing Consideration** boxes have been added with the content which need to be taken care of before any procedure of recording, ethical concern or probable diagnosis of the illness.

Each and every system of **Physical Examination** has been provided in an illustrated and tabular format for better understanding of the concept and its easy implementation in nursing clinical practices.

PHYSICAL EXAMINATION

It is a complete examination or comprehensive study of the body or parts of the body to determine the general condition of the body. Depending upon the complaints, we can assess the part of the body and its thorough examination gives us a complete assessment of the patient's physical and mental health status (Fig. 5).

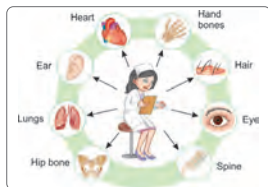


Fig. 5: Physical examination

TECHNIQUES OF EXAMINATION

Mental Status Examination (MSE)

The valuable and accurate information about mental status and behaviors of the patient is gathered by both clinician's/nurse's observations and subjective description given by patient, which further helps in developing an appropriate plan of care.

Special and various **Techniques of Examination** with rationales help students when they use them in specific cases.

Illustrated and clinical features of various diseases have been given as additional information to rule out probable diagnosis and possible findings and giving relevant nursing care.

DISEASES ASSOCIATED WITH CORNEA AND LENS

Diseases

Arcus senilis



Causes

- Deposits of lipids in outer part of cornea
- It is more common in advance age

Nursing Knowledge Tree
An Initiative by CBS Nursing Division

Must Know

- **Resonance:** A low pitched and loud sound.
- **Hyper resonance:** Very loud and very low pitched longer than the resonance of booming quality signifies emphysema.

Some important facts and terms along with the overview of the concerned topic have been highlighted in separate boxes named as **Must Know**.

Case Studies based on different real-time cases have been summarized for better and practical overview of any nursing clinical practices done in a hospital premises.



Case Study 1

A 60-year-old female reported to the emergency department with acute onset and shortness of breath. Her symptoms began approximately 2 days before and had progressively worsened without associated, aggravating, or relieving factors noticeable.

She told that she felt pressure in the chest while doing work and even sometime she was unable to complete her assigned work and left without completion.

Chief complaints

- Retrosternal chest pain—last 2 days
- Mild chest discomfort—2 days
- Epigastric pain and feeling of indigestion or of fullness and gas—2–3 days

Health Promotion and Counseling Strategies

from nursing point of view have been included in every chapter to enable people to enhance their controlling power and also to improve their health.



Strategies for Health Promotion Interventions

- The skin damage is due to exposure to ultraviolet rays and direct exposure to sun, so to avoid these:
 - Sunscreen lotion of SPF 30 or more should be used in India especially in summer when going out.
 - One should consider personal or family history of any skin cancer and analyze moles especially atypical and enlarged.
 - Avoid heavy sun exposure and tanning for this regular skin cancer screening should be done in susceptible group of

List of commonly Used Medical Abbreviations

@ - At
 A & P - Anatomy and physiology
 ab - Abortion
 abd - Abdominal
 ABG - Arterial blood gas
 a.c. - Before meals
 ac & cl - Acetest and clintest
 ACLS - Advanced cardiac life support
 AD - Right ear
 ADL - Activities of daily living
 ad lib - As desired
 adm - Admission
 afeb - Afebrile, no fever
 AFB - Acid-fast bacillus
 AKA - Above the knee
 alb - Albumin
 alt dieb - Alternate days (every other da
 am - Morning
 pm - Evening
 AMA - Against medical advice
 amal - Amalgam
 amb - Ambulate, walk
 AMI - Acute myocardial infarction
 amt - Amount

A list of commonly used **Medical Abbreviations** at the beginning provides information to determine the meaning of the notations made by a nurse or doctor on your medical records.

A **Glossary** of medical terminology has been added to simplify the difficult medical language and make it easy-to-understand even for a layman.

Glossary

A

- **Abrasion:** Abrasion is a type of open wound that is caused by the skin rubbing against rough surface
- **Abscess:** Localized collection of pus anywhere in the body
- **Alopecia:** Hair loss from any part of the body naturally or due to a medical condition
- **Analgesic:** Pain killer or any drug, which relieves pain
- **Anomaly:** Deviation from normal

Annexures

1

ANA STANDARDS OF NURSING PRACTICE

- **Assessment:** The registered nurse collects comprehensive data pertinent to the patient's health/or the situation.
- **Diagnosis:** The registered nurse analyzes the assessment data to determine the diagnosis or issues.
- **Outcomes identification:** The registered nurse identifies expected outcomes for a plan individualized to the patient or the situation.
- **Planning:** The registered nurse develops a plan that prescribes strategies and alternatives to attain expected outcomes.
- **Implementation:** The registered nurse implements the identified plan.
- **Coordination of care:** The registered nurse coordinates care delivery.
- **Health teaching and health promotion:** The registered nurse uses strategies to promote health and a safe environment.
- **Consultation:** The graduate level-trained specialty nurse or advanced practice registered nurse provides consultation to influence the identified plan, enhance the abilities and bring change.
- **Prescriptive authority and treatment:** The advanced practice registered nurse uses prescriptive authority, procedures, referrals, treatments and therapies in accordance with state and federal laws and regulations.
- **Evaluation:** The registered nurse evaluates progress toward attainment of outcomes.

Supplemented with extra study material related to Preliminary Physical Examination and History Taking in the form of **Annexures**.

Multiple Choice Questions at the end of every chapter have been incorporated for assessing cognitive skill.

MULTIPLE CHOICE QUESTIONS

1. What is the most prominent feature of migraine headache?
 - a. Throbbing pain with nausea and vomiting
 - b. Tightness over the head
 - c. Pain around the sinus
 - d. Occurs on daily basis
2. Which of the following condition is arcus senilis?
 - a. Sclera of the eye
 - b. Eye lids
 - c. Deposition of phospholipids and cholesterol in the peripheral area of cornea.
 - d. Upper eyelids
3. What do you mean by term Entropion?
 - a. Eye lids roll inwards around the eye lids
 - b. Lid retraction
 - c. Increased intraocular pressure
 - d. Growth on the conjunctiva
4. Which of the following condition retinoscopy is performed?
 - a. To check lesions in the anterior and posterior part of eye
 - b. To check eye resistance against pressure
 - c. Measure intraocular pressure
 - d. To check the refractive error of the eye



List of Commonly Used Medical Abbreviations

@ - At

A & P - Anatomy and physiology

ab - Abortion

abd - Abdominal

ABG - Arterial blood gas

a.c. - Before meals

ac & cl - Acetest and clinitest

ACLS - Advanced cardiac life support

AD - Right ear

ADL - Activities of daily living

ad lib - As desired

adm - Admission

afeb - Afebrile, no fever

AFB - Acid-fast bacillus

AKA - Above the knee

alb - Albumin

alt dieb - Alternate days (every other day)

am - Morning

pm - Evening

AMA - Against medical advice

amal - Amalgam

amb - Ambulate, walk

AMI - Acute myocardial infarction

amt - Amount

ANS - Automatic nervous system

ant - Anterior

AOx3 - Alert and oriented to person, time, and place

AP - Apical pulse

approx - Approximately

aq - Aqueous

ARDS - Acute respiratory distress syndrome

asap (ASAP) - As soon as possible

as tol - As tolerated

ATD - Admission, transfer, discharge

BE - Barium enema

bid - Twice a day

bil, bilateral - Both sides

bl - Blood

BLS - Basic life support

BM - Bowel movement

B/P - Blood pressure

bpm - Beats per minute

BR - Bed rest

BS - Breath sounds

BUN - Blood, urea, nitrogen levels

BVM - Bag-valve-mask

bx - Biopsy

c - With

C & S - Culture and sensitivity

c-spine - Cervical spine

CA - Cancer



Glossary

A

- **Abrasion:** Abrasion is a type of open wound that is caused by the skin rubbing against rough surface
- **Abscess:** Localized collection of pus anywhere in the body
- **Alopecia:** Hair loss from any part of the body naturally or due to a medical condition
- **Analgesic:** Pain killer or any drug, which relieves pain
- **Anomaly:** Deviation from normal
- **Asymptomatic:** Not presenting with signs and symptoms of infection illness or disease
- **Arthralgia:** Pain in joints
- **Ataxia:** Loss of full control of bodily movements or lack of muscle control
- **Atopy:** Genetic tendency to develop allergic disease
- **Auscultation:** The action of listening sounds from the heart, lungs or other organs—typically with stethoscope

B

- **Benign:** Noncancerous tumor or growth that does not spread to other parts of the body
- **Blood chemistry profile:** Blood test to evaluate overall health and to deduce a cause of disease

C

- **Carotid:** Major blood vessels in the neck
- **Cheilitis:** Swelling of the lips
- **Chief complaint:** It is a statement of the reason that a patient needs medical care



Annexures

1

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CHAPTER

9

Gastrointestinal System

The digestive system involves a group of organs working together for breakdown of food and to convert the food into energy and nutrients to meet the requirement of entire body. The mouth, esophagus, stomach and intestines are parts of the digestive system. At some part of the life, everyone deals with digestive problems such as constipation and diarrhea.


Abdominal pain can occur due to different conditions but the main cause is infection, abnormal growth, inflammation, obstruction or blockage and intestinal disorders. Even infection in the throat, intestines and blood can lead to bacteremia in the digestive tract, resulting in abdominal pain.

The upper abdomen consists of stomach, spleen, pancreas, kidneys, adrenal gland, part of colon, liver, gallbladder, and small intestines (duodenum). Normally, upper abdominal pain occurs due to minor causes such as pulled muscles, and it goes away on its own. When there is severe pain on pressure, fever, nausea, vomiting that doesn't go away, or there is unaccepted weight loss, jaundice, or bloody stools, then we require immediate treatment.



PHYSICAL EXAMINATION OF ABDOMEN

Abdomen	Observe for
Skin	Scars, stretch marks, veins and bruises
Shape and symmetry	Bulging in ascetic bulge in supra pubic region
Enlarged organs	Liver enlargement or spleen enlargement
Any masses	<ul style="list-style-type: none">• Tumor• Increase in GI obstruction



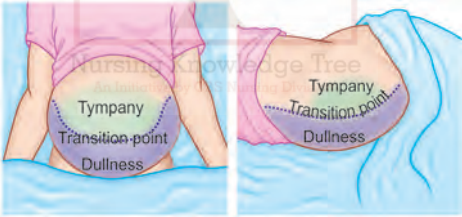
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Abdomen	Observe for
Peristaltic movements	Pulsating abdominal mass in aortic aneurysm
Auscultation of abdomen	Bowel sounds are normal, increased or decreased and absence of bowel sounds indicate intestinal paralysis
Bruits in abdomen	Majority of bruits in epigastrium region due to celiac artery stenosis
Hepatic friction rub	<ul style="list-style-type: none"> If rub is due to movement of liver, it will be confined to abdomen and will not radiate to chest Peritoneal friction rub is due to the inflammation or tumor of liver (cricking or grating noise during respiration)
Percussion of abdomen	Normal percussion sounds <ul style="list-style-type: none"> Resonance (heard over lungs) Tympany (air filled bowel loops) Dullness (fluid or solid organs)
Pattern of tympany and dullness	Ascitis, GI obstruction, pregnant uterus and ovarian tumor
Palpation of abdomen 	<ul style="list-style-type: none"> Examination of crepitus of abdominal wall, abdominal tenderness, abdominal masses. Liver and kidneys are palpable in normal individuals but if any other masses are there, it will be abnormal. Firm abdominal wall indicates peritoneal inflammation. Pain is more when we withdraw our hand and we again press down. It indicates rebound tenderness. Deep palpitation masses mean tumor. Abdominal mass (pregnant uterus) Inflammatory mass (diverticulitis) Vascular mass—abdominal aortic aneurysm (AAA) Neoplastic mass (colon cancer) Obstructive mass (distending bladder, dilated loops of bowel)





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Abdomen	Observe for
<p>Palpation of liver</p>  <ul style="list-style-type: none"> • Percuss the liver to measure its size. When we percuss the liver we note the size of liver. • Starting in the mid clavicular line at about the 3rd intercostal space, lightly percuss and move down. • Percuss inferiorly until dullness denotes the liver's upper border (usually at 5th intercostal space in MCL). <ul style="list-style-type: none"> ▪ Any mass? ▪ Any tenderness? 	<ul style="list-style-type: none"> • Increased dullness sound in enlarged liver and heart failure and decreased dullness in liver cirrhosis • Increased dull sound in enlarged liver and heart failure; and decreased dull sound in liver cirrhosis • Tumor mass • Hepatitis and heart failure
<p>Palpation of spleen</p>  <ul style="list-style-type: none"> • Palpation for spleen enlargement should begin with the patient in supine position with knees flexed. • Using the right hand, the examiner should begin well below the left costal margin and feel gently but firmly for the spleen edge by pushing down, then cephalad, then releasing 	<ul style="list-style-type: none"> • If palpable under the left costal margin during the inspiration means enlarged spleen

Contd...

Abdomen	Observe for
<p>Palpation of kidneys</p>  <ul style="list-style-type: none"> • Palpate each kidney tenderness 	<ul style="list-style-type: none"> • Kidney enlargement from cyst, cancer and hydronephrosis • Tender in pyelonephritis
<p>Abdominal aorta</p> 	<ul style="list-style-type: none"> • An abdominal aortic aneurysm refers to an enlarged area near the bottom part of aorta. • It usually develops over the course of several years and doesn't produce many symptoms—deep pain in abdomen, or on the side of abdomen • Pulse is felt near your bellybutton
<p>Abdominal ascites</p> 	
<p>Palpate for dullness</p> <ul style="list-style-type: none"> • Begin palpation over the right lower quadrant, near the anterior iliac spine. • Palpate for the liver with one or two hands, palm down, moving upward 2–3 cm at a time toward the lower costal margin. • Ask the patient to take a deep breath. The liver moves downward, if the diaphragm moves downwards. 	<ul style="list-style-type: none"> • Doughy fluctuant sensation (change in level of dullness or shifting dullness indicates more than 500 mL of ascetic fluid) • A physical sign of ascites is demonstration of transmitted fluid wave

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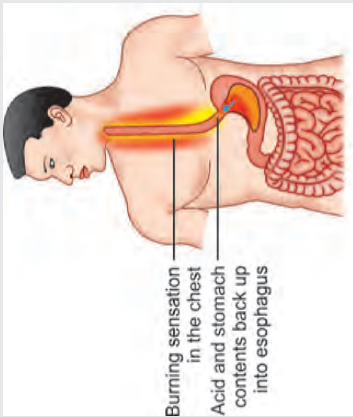
Abdomen	Observe for
<p>Palpation for appendicitis</p>  <ul style="list-style-type: none"> When we palpate the left lower quadrant of abdomen, if increase in the pain is felt in the right lower quadrant, the person is having Rovsing's sign and may be due to appendicitis. 	<ul style="list-style-type: none"> When appendix becomes swollen and inflamed, it irritates the peritoneum, which causes sharp pain in the right lower part of the abdomen. The pain is more constant and severe.
<p>Palpation for cholecystitis</p>  <ul style="list-style-type: none"> Abdominal examination in cholecystitis biliary colic is main symptom in gallbladder colic. It is a dull pain in middle and upper right area of the abdomen. 	<ul style="list-style-type: none"> The Murphy sign is abdominal tenderness from the pressure of ultrasound probe over gallbladder and it is sign of local inflammation.
<p>Palpation for hepatomegaly</p>  	<ul style="list-style-type: none"> Place right hand on patient abdomen in the right lower quadrant. Now slowly move up to the right upper quadrant lateral to the rectus muscles and now press it in and up and ask the patient to take deep breath when liver is enlarged it comes down and touches the finger tip and will be recognizable. When we palpate inflamed liver it is prominently tender. There is prominent tenderness indicates hepatitis or prominent congestion indicates congestive heart disease. Firm, blunt, round, irregular liver edge indicates abnormality.

Types of Hepatitis and its Characteristics Features

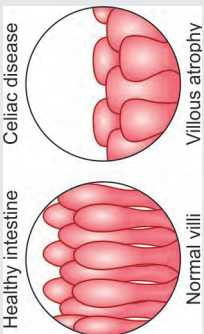
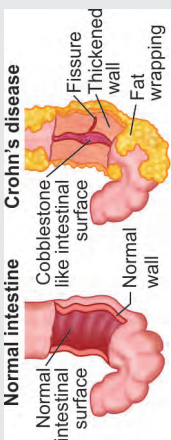
	A	B	C	D	E
Source of virus	Feces	Blood/blood-derived body fluids	Blood/blood-derived body fluids	Blood/blood-derived body fluids	Feces
Route of transmission	Fecal-oral	Percutaneous permucosal	Percutaneous permucosal	Percutaneous permucosal	Fecal-oral
Chronic infection	No	Yes	Yes	Yes	No
Prevention	Pre/post-exposure immunization	Pre/post-exposure immunization	Blood donor screening, risk behavior modification	Pre/post-exposure immunization risk behavior modification	Ensure safe drinking water

Disease	Pathogen	Symptoms	Incubation period	Method of transmission	Diagnostic test
Hepatitis A	HAV, Picornaviridae	Fever, headache, malaise, jaundice	2–6 weeks	Ingestion	IgM antibodies
Hepatitis B	HBV, Hepadnaviridae	Severe liver damage, chronic disease occurs	3–26 weeks	Parenteral, sexual contact	IgM antibodies
Hepatitis C	HCV, Flaviviridae	Same as HBV, more chronic	2–33 weeks	Parenteral	PCR of viral RNA
Hepatitis D	HDV, Deltaviridae	Severe liver damage, high mortality	6–26 weeks	Parenteral, when co-infected with HBV	IgM antibodies
Hepatitis E	HEV, Caliciviridae	Pregnant women may be at high risk and show high mortality, not chronic disease	2–6 weeks	Ingestion	IgM antibodies, PCR of viral RNA

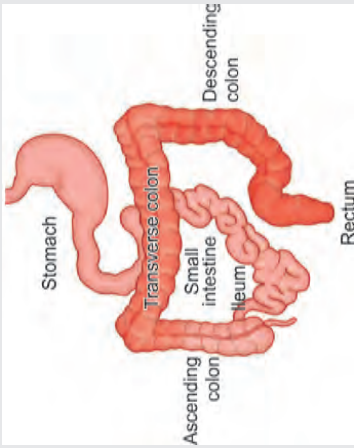
DISEASES ASSOCIATED WITH DIGESTIVE SYSTEM

Diseases	Symptoms	Risk factors	Preventive measures
GERD (acid reflux disease)  <p>Burning sensation in the chest</p> <p>Acid and stomach contents back up into esophagus</p> <ul style="list-style-type: none"> Chronic disease when bile flows into the food pipe and irritates the lining 	<ul style="list-style-type: none"> Burning pain in the chest occurs after eating worsens when lying down acid reflux more than twice a week, indicate GERD 	Obesity, hiatal hernia, pregnancy, connective tissue disorder such as scleroderma, delayed stomach emptying	<ul style="list-style-type: none"> Avoid smoking Avoid eating large meals or late night eating Avoid fatty or fried food, and limit alcohol or coffee intake

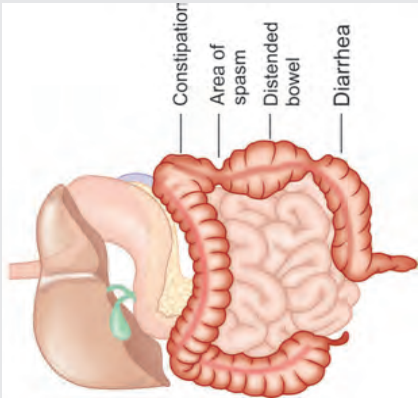
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Diseases	Symptoms	Risk factors	Preventive measures
Celiac disease  <p>Healthy intestine: Normal villi</p> <p>Celiac disease: Villous atrophy</p> <p>Immune reaction to eating gluten damages the villi of small intestine leads to malabsorption of nutrients</p>	<ul style="list-style-type: none"> Diarrhea, bloating, wind, fatigue anemia and osteoporosis 	<p>Common in patients already having the following diseases;</p> <ul style="list-style-type: none"> Type 1 diabetes patient Down syndrome or Turner syndrome. Autoimmune thyroid disease. Microscopic colitis (lymphocytic or collagenous colitis) Addison's disease. 	<ul style="list-style-type: none"> Eat gluten free diet
Crohn's disease  <p>Normal intestine: Normal intestinal surface</p> <p>Crohn's disease: Cobblestone like intestinal surface, Fissure, Thickened wall, Fat wrapping</p>	<ul style="list-style-type: none"> It can cause abdominal pain, diarrhea, weight loss, anemia and fatigue, blood in stools, mouth sores, swelling of tissues of anal sphincter development of ulcers and fissures and anal fistula between the anus and rectum 	<ul style="list-style-type: none"> It can happen irrespective of the age but most commonly occurs in young persons. Hereditary Cigarette smoking. <ul style="list-style-type: none"> Usage of certain medications like NSAIDs (Nonsteroidal anti-inflammatory drugs). 	<ul style="list-style-type: none"> Avoid smoking. Have balanced diet Exercide regularly. Avoid stress.

Contd...

Diseases	Symptoms	Risk factors	Preventive measures
<p>Ulcerative colitis</p>  <ul style="list-style-type: none"> • It occurs in large intestine 	<ul style="list-style-type: none"> • It is in the innermost lining of large intestine (colon) and rectum, rectal bleeding, bloody diarrhea abdominal cramps and pain 	<ul style="list-style-type: none"> • It is prevalent in around or above 30 years of age • Common in white people but can occur in any type of population hereditary 	<ul style="list-style-type: none"> • Avoid carbonated drinks like colas • Eat fiber-rich water foods • Take plenty of meals • Have smaller meals

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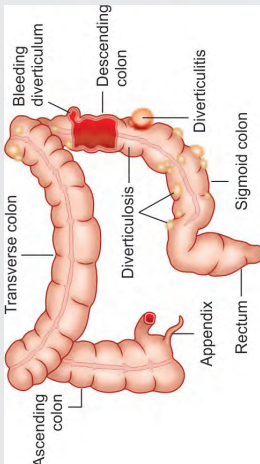
Diseases	Symptoms	Risk factors	Preventive measures
<p>Irritable bowel syndrome (IBS)</p> 	<ul style="list-style-type: none">• Abdominal pain, bloating, diarrhea and constipation, lower abdominal pain that is less severe after bowel movements	<ul style="list-style-type: none">• Common under the age of 50• Female are more prone.• Hereditary• Seen in people having anxiety, depression or other mental health problems.	<ul style="list-style-type: none">• Avoid smoking• Restrict caffeine• Do regular exercise

• It does not cause inflammation or sores in intestine



Contd...

Diseases	Symptoms	Risk factors	Preventive measures
Hemorrhoids  <ul style="list-style-type: none"> Swollen and inflamed veins in the rectum and anus, may be internal or external 	<ul style="list-style-type: none"> Discomfort and bleeding 	<ul style="list-style-type: none"> Straining during passage of stool. Long sitting working hours. Chronic diarrhea or constipation. Obese pregnancy A low-fiber diet heavy lifting 	<ul style="list-style-type: none"> Eat fiber-rich foods. Plenty of fruits, vegetables and whole grains Plenty of fluids, 8–10 glasses of water a day Avoid straining in toilet Do regular exercise Avoid long periods of sitting.

Contd...

Diseases	Symptoms	Risk factors	Preventive measures
<p>Diverticulitis</p>  <p>Ascending colon Transverse colon Bleeding diverticulum Diverticulosis Diverticulitis Descending colon Sigmoid colon Rectum Appendix</p> <ul style="list-style-type: none"> It is an infection of one or more pouches formed in the digestive tract 	<ul style="list-style-type: none"> Abdominal pain, fever, nausea, and change in bowel habits 	<ul style="list-style-type: none"> It advances with the age More common in obese people Having habit of smoking Diet rich in animal fat and low fiber 	<ul style="list-style-type: none"> Do exercise regularly Take fiber-rich diet Take plenty of fluids and stop smoking

Contd...

Diseases	Symptoms	Risk factors	Preventive measures
Anal fissures  <ul style="list-style-type: none"> • Small tear in the lining of anus 	<ul style="list-style-type: none"> • Pain and bleeding during bowel movements 	<ul style="list-style-type: none"> • Constipation • Straining during passage of bowel • Passing hard stools. • Women are more prone to after parturition 	<ul style="list-style-type: none"> • Keep anorectal area dry and maintain hygiene of the rectum
Gallstones  <ul style="list-style-type: none"> • A hardened deposit of the fluid in the gallbladder 	<ul style="list-style-type: none"> • Pain in back or upper right abdomen can be severe 	<ul style="list-style-type: none"> • Common in female • Age 40 or older • Obesity • Lifestyle related (sedentary) • Pregnancy • Intake of High fat diet 	<ul style="list-style-type: none"> • Eat fiber-rich diet • Restrict sugar intake and refined carbohydrates • Avoid fry foods and dessert

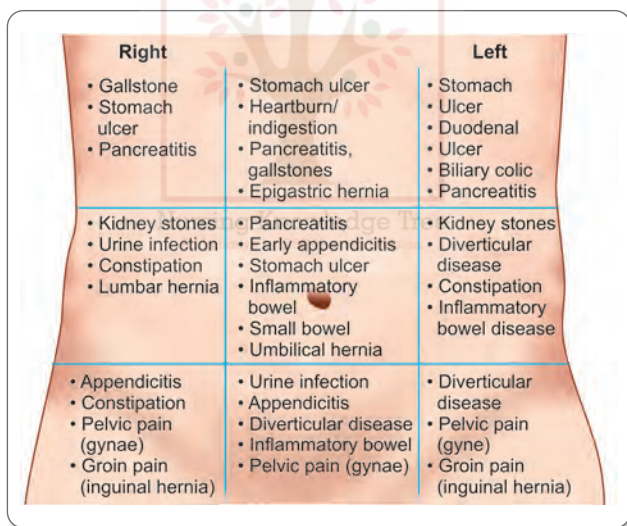
TYPES OF ABDOMINAL PAIN

Abdominal pains can be localized, cramp-like or colicky. Here, localized pain is limited to one area of the abdomen and it is caused in a particular organ. The most common cause of localized pain is ulcers.

Sometimes cramps-like pain associated with diarrhea, constipation, bloating, and flatulence can be observed. In females, it is usually associated with menstruation, miscarriage or any complication in female reproductive system. This pain subsides without any treatment.

Colic pain is indicative of gallstones or kidney stones. This pain occurs suddenly and may feel like a severe muscular spasms.

Location of Pain within the Abdomen (Figs 1 and 2)



Right	Middle	Left
<ul style="list-style-type: none"> • Gallstone • Stomach ulcer • Pancreatitis 	<ul style="list-style-type: none"> • Stomach ulcer • Heartburn/ indigestion • Pancreatitis, gallstones • Epigastric hernia 	<ul style="list-style-type: none"> • Stomach • Ulcer • Duodenal • Ulcer • Biliary colic • Pancreatitis
<ul style="list-style-type: none"> • Kidney stones • Urine infection • Constipation • Lumbar hernia 	<ul style="list-style-type: none"> • Pancreatitis • Early appendicitis • Stomach ulcer • Inflammatory bowel • Small bowel • Umbilical hernia 	<ul style="list-style-type: none"> • Kidney stones • Diverticular disease • Constipation • Inflammatory bowel disease
<ul style="list-style-type: none"> • Appendicitis • Constipation • Pelvic pain (gynae) • Groin pain (inguinal hernia) 	<ul style="list-style-type: none"> • Urine infection • Appendicitis • Diverticular disease • Inflammatory bowel • Pelvic pain (gynae) 	<ul style="list-style-type: none"> • Diverticular disease • Pelvic pain (gyne) • Groin pain (inguinal hernia)

Fig. 1: Different locations of abdominal pain

You can recognize the pain from the signs of pain that are easily visible on the face of a patient (Fig. 2).

Pain that is felt in the entire abdomen and which does not indicate any particular area, may indicate appendicitis, Crohn's disease, traumatic injury, irritable bowel syndrome, urinary tract infection and flu (Table 1).

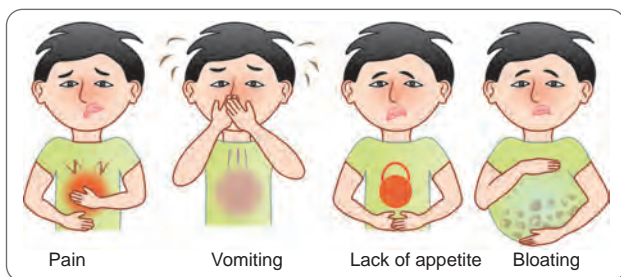


Fig. 2: Pain signs

Pain in the lower abdomen may indicate appendicitis, intestinal obstruction and ectopic pregnancy. In females, lower abdominal pain may be caused by severe menstruation, ovarian cyst, fibroid, endometriosis, and pelvic inflammatory diseases.

Table 1: Indications of pain felt in different regions of abdomen

Region of pain	Indications
Pain in the center of abdomen	It may be due to appendicitis, gastroenteritis, injury, and uremia.
Upper abdominal pain	It may be due to gallstones, heart attack, hepatitis and pneumonia.
Lower left abdominal pain	It may be due to Crohn's disease, cancer, kidney infection, ovarian cyst and appendicitis.
Upper left abdominal pain	It may be due to enlarged spleen, fecal impaction, injury, kidney infection, heart attack and cancer.
Lower right abdominal pain	It is due to appendicitis, hernia, kidney infection, cancer and flu.
Upper right abdominal pain	It is due to hepatitis, injury, pneumonia, and appendicitis.

Diagnosis of Abdominal Pain

The cause of the abdominal pain can be confirmed through series of tests. First of all health care provider will do physical examination.

For this, various areas of abdomen are prescribed to check for tenderness and swelling. This information along with location and severity of the pain may pave the way for further tests to be done, if needed. Common tests suggested include MRI scans, ultrasounds and X-rays. These help in diagnosis of tumors, ruptures and inflammations.



Nursing Consideration

Healthcare giver should have knowledge related to different areas of abdominal pain with specific signs/symptoms, so immediate diagnosis must be made so that treatment can be started for better prognosis.

Differential Diagnosis of Abdominal Pain

Abdominal pain is the most common cause for hospital admissions when pain is acute, sharp and continuous or intermittent. The first step in diagnosing abdominal pain is to identify the location of the pain. Now subset of conditions that cause pain in that particular part can be considered for further diagnosis. Here, we have to keep in mind the following points:

- The time course of the pain
- Peritoneal findings on examination
- Unexplained hypotension
- Abdominal distention

Some diseases are present subacutely or chronically over weeks, months and years, like irritable bowel syndrome. Some develop acutely within hours of onsets, e.g. appendicitis. Now abdominal pain can be organized based on the fact whether patient is having first episode of acute abdominal pain or a recurrent episode.

EMERGENCIES IN GASTROINTESTINAL SYSTEM

Condition	Signs and symptoms	Diagnosis	Management
Appendicitis	Abdominal pain, nausea, vomiting and fever, pain migrates to right lower quadrant	History and physical examination, CT scan of abdomen	IV fluids, general surgery consultation, antibiotics and pain control
Cholecystitis	Pain radiates from right upper quadrant to epigastric, nausea vomiting and fever	Right upper quadrant ultra sound	IV fluids, general surgery consultation, antibiotics and pain control

Contd...

Condition	Signs and symptoms	Diagnosis	Management
Acute pancreatitis	Sharp epigastric pain shoots to back	Abdominal CT and ultrasound	Patient should be nil per oral (NPO), IV fluids and surgery
Bowel obstruction	Pain is diffuse and crampy	Abdominal CT and ultrasound and X-ray	Patient should be NPO, IV fluids and placement of nasogastric tube for feeding and general surgery
Upper and lower gastrointestinal bleeding	Epigastric pain, hematochezia, melena, hematemesis, hypovolemia	Rectal examination, blood count and coagulation profile	IV fluid and blood transfusion are needed, if patient is stable then observe, if unstable then surgery consultation
Liver injury	Blunt or penetrating pain in right upper quadrant, right rib, flank and shoulder pain	CT scan of abdomen and pelvis Diagnostic peritoneal aspiration and lavage	Advance life support, and general surgery
Spleen injury	Pain in lower upper quadrant, left rib and left flank pain	CT scan of abdomen and pelvis diagnostic aspiration and lavage	Advance life support, and general surgery



Nursing Consideration

Healthcare giver should have knowledge related to emergency conditions pertaining to digestive system so that prompt treatment could be started to avoid further degeneration, decadence, decline—that means the falling from a higher to a lower level of patient's health.



Case Study 4

Ms R, a 37-year-old woman is admitted in medical ward with diagnosis of **irritable bowel syndrome** with symptoms of nausea and epigastric pain.

Chief complaints are:

- Nausea since 4 days
 - Epigastric pain since 2 days
 - Postprandial fullness/bloating 3–4 days
 - Constipation 4 days
 - Left lower quadrant pain with bowel movements 4–5 days
Started 2 years ago with an episode of severe diarrhea.
Usually has 2–3 small hard stools per week, and feels she is never completely emptied.
- Pain is improved when she has a bowel movement, but she often strains to have a bowel movement.

➤ **Family history:** All members are healthy except patient

➤ Vitals:

- **Temperature:** 37.6°C
- **Pulse:** 110 b/m
- **Respiration:** 15 b/m
- **BP:** 112/80 mm Hg

Dietary habits

Often gets abdominal pain, which is even worse when she forgets to take her fiber and drink plenty of water.

Social history

Working as sales girl in a private company. Married but does not have children.

Family history and comorbidities

No family history of any GI disorders and no other diseases.

Laboratory tests

- Barium enema and colonoscopy reveal spasms, distention, or mucus accumulation in the intestines.
- Complete blood count shows normal findings
- Stool analysis shows normal findings.

Contd...

Physical examination

- Inspected and palpated the abdomen.
- A digital rectal examination performed.
- Auscultated—the bowel sounds (with a stethoscope).
- A pelvic examination is done.

Diagnosis

- Irritable bowel syndrome

Dietary and other advices

- Eating a well-balanced, high-fiber diet; avoiding gas-forming foods; and avoiding fluid intake with meals because it causes abdominal distention.
- Adhering to a schedule of regular work and rest periods.
- Participating in regular exercise, which reduces anxiety and increases intestinal motility.
- Avoiding or minimizing stress-producing situations.
- Drinking six to eight glasses of water daily (not at meals) to prevent constipation.
- Adhering to a regular eating schedule and chewing food slowly and thoroughly.

Nursing diagnosis

- Diarrhea due to inflammation, irritation, or malabsorption of the bowel.
- Risk for deficient fluid volume
- Anxiety due to disease condition
- Acute pain
- Ineffective coping
- **Imbalanced nutrition:** Less than body requirements.
- Deficient knowledge.



Case Study 5

Mr XXX, a 45-year-old male suffering from **gastritis** admitted in Medical Ward with history of abdomen tenderness, epigastric discomfort, cramping, nausea and vomiting, and blood in stool.

Chief complaints

- Abdomen tenderness from 10 days
- Epigastric discomfort from last 3 days
- Cramping from last night
- Nausea and vomiting from 2 days
- Blood in stool from last night

There is nothing significant in past medical and surgical history.

- **Family history:** There are five members in the family. All the members are healthy except patient.

Vitals:

- **Temperature:** 38°C
- **Pulse:** 100 b/m
- **Respiration:** 20 b/m
- **BP:** 120/80 mm Hg

Physical examination

On inspection: Patient appears pale and fatigue.

On palpation: Tenderness to touch, pain, swelling.

Laboratory investigation

Endoscopy performed, CBC is done, tissue biopsy is revealed gastritis.

Medication

- Tablet diclofenac 250 mg, capsule amoxicillin 500 mg, tablet ranitidine 150 mg, injection perinorm drugs are given.
- **Health education** is given to the patient, i.e., for taking light diet, doing spicy foods and heavy meals, caffeine products also restricted, more fluid intake is recommended.

Nursing diagnosis

- Acute pain related to irritated stomach mucosa.
- Risk for imbalance fluid volume related to insufficient fluid intake.
- Alter nutrition less than required related to anorexia and alter renal function.
- Anxiety related to treatment and hospitalization.
- Deficient knowledge related to information misinterpretation.



Strategies for Health Promotion Interventions

- Gastrointestinal diseases related to clinical conditions with excessive use of alcohol and the liver disease are the most common GI diseases, e.g. hepatosplenomegaly.
- As the excessive intake of alcohol aggravates the condition further so regular screening for alcohol abuse is a must. Viral hepatitis is also most common among the gastrointestinal disease.
- These can be prevented by:
 - Proper counseling and telling about the ill effects can be helpful in controlling the disease to some extent.
 - Properly educating the patients about the spread of the disease
 - Following the vaccination schedule
 - Maintaining good hygiene
 - Hand washing with soap and water before preparing or eating food is quite helpful in controlling these diseases
 - Colon cancer which is quite prevalent can be controlled by various screening programs (using fecal blood testing and sigmoidoscopy, early detection). Removing precancerous adenomatous polyps are quite helpful.

Nursing Knowledge Tree

Nursing Knowledge Tree

MULTIPLE CHOICE QUESTIONS

1. Which of the following term means blood in stool?
 - a. Hematemesis
 - b. Hematuria
 - c. Malena
 - d. Hemoptysis
2. Which term is used for blood in vomiting?
 - a. Diverticulitis
 - b. Irritable bowel syndrome
 - c. Both a and b
 - d. None of these
3. Which is the part of the body colonoscopy is performed to visualize?
 - a. Epigastric pain
 - b. Pelvic pain
 - c. Both a and b
 - d. None of these
4. What is the term used for surgery of removal of gallbladder?
 - a. Hemoptysis
 - b. Hematemesis
 - c. Hemeturia
 - d. Malena

- lithiasis b. Renal calculi
 c. Nephrocalcinosis d. None of the above
- The procedure performed to diagnose the cause of the above condition is:
- a. Intravenous pyelogram b. Ultrasound
 c. Cystoscopy d. All of the above
- The following procedure is not used in the diagnosis of the above condition:
- a. Cystoscopy b. Bronchoscopy
 c. Ureteroscopy d. Laparoscopy

1. c. 2. c. 3. a. 4. b. 5. c. 6. b.
7. c. 8. a. 9. d. 10. d

CBS Handbook on

Clinical Examination & History Taking

A Nursing Approach

Salient Features

- Each and every system of Physical Examination and its associated diseases have been provided in an illustrated and tabular format for better understanding of the concept and its easy implementation in nursing clinical practices.
- At various places, Nursing Consideration Boxes have been added which need to be taken care of before any procedure of recording, ethical concern or probable diagnosis of the illness.
- 50+ real-time Case Studies on various diseases/conditions have been added as special features.
- Health promotion and counseling strategies from nursing point of view enabling people to increase control over, and to improve, their health, have been given in each and every chapter.
- Clinical Examination & History Taking in special population have been covered in separate chapters.
- Special and various techniques of examination with rationales help students when they use them in specific cases.
- More than 600 figures, line arts, tables and flowcharts have been included for better understanding of the concepts.
- A list of commonly used Medical Abbreviations and Glossary at the beginning provides information that determines the meaning of the notations made by a nurse or doctor on medical records.
- Multiple Choice Questions at the end of every chapter have been incorporated for assessing cognitive skill ability.
- Important annexures like ANA standard, (code of ethics, vital signs normal values, etc.) are added.

About the Author



Babita Sood PhD(N), MSc(MSN), BSc(N), Diploma in Hospital Administration, is presently working as principal in Amar Professional College of Nursing, Mohali, Punjab. She has got more than 26 years of experience in Education and Nursing Service Education. She has nurtured the life of more than ten thousand young undergraduates in the field of nursing. She is having vast experience of attending workshops at local and national level. Her practical experience has helped many aspirants to achieve their overseas goals. She is a teacher, guide and mentor with outstanding academic experience. The author is member of several professional bodies and has published many articles in local, national and international journals.

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