



---

PHYSICAL  
DIAGNOSIS

• •  
WALKER

---



物理診斷學  
PHYSICAL DIAGNOSIS, 1952

---

原 著： Harry Walker  
影 印： 大 康 書 局  
發 行： 上海(〇)寧波路八十六號 電話一六六九三  
印 刷： 大 陸 美 術 印 刷 所  
裝 訂： 王 雲 記 裝 訂 廠  
定 價： 柒 元 伍 角

---

一九五五年四月照相印 787×1692 1/22 印數 1—300



# PHYSICAL DIAGNOSIS

By

HARRY WALKER, M.D., F.A.C.P.

Professor of Clinical Medicine, Medical College of Virginia, Richmond, Virginia

*WITH 126 ILLUSTRATIONS*



---

## CONTRIBUTORS

---

**Raymond A. Adams, B.S., M.D.**

Resident in Neurology, Massachusetts General Hospital.

**Patrick H. Drewry, Jr., B.S., M.D.**

Associate Professor of Psychiatry, Medical College of Virginia.

**Randolph H. Hoge, B.S., M.D., F.A.C.S.**

Professor of Gynecology, Medical College of Virginia.

**Herbert C. Lee, B.A., M.D., F.A.C.S.**

Associate Professor of Clinical Surgery, Medical College of Virginia.

**Reno R. Porter, A.B., M.D., F.A.C.P.**

Associate Professor of Medicine, Medical College of Virginia.

**Edward S. Ray, A.B., M.D., F.A.C.P.**

Assistant Professor of Medicine, Medical College of Virginia.





---

## PREFACE

---

The recent advances in pathology and the frequent employment of the more exact diagnostic aids in clinical medicine have caused some to think that the physical examination is of less value now than formerly. It is true that many signs which in the past were thought to be of value have now been shown to be worthless. It is also true that by the physical examination minor physical changes cannot be detected, and, furthermore, that changes which are found are often not specific for any disease. In spite of these shortcomings, physical diagnosis is on a more sound basis now than ever before for the simple reason that exact diagnostic measures have helped to place the subject on a firmer foundation. Then, too, the more one correlates the physical signs discovered upon examination, with findings shown by instruments of precision, the more independent one should become of the refined diagnostic measures. In fact, regardless of the advances in diagnosis in other fields, the examination of the patient will always be important in clinical medicine, for when the physical examination is well done, the next step in determining the diagnosis can be taken with more logic and the diagnosis can be arrived at in a more direct manner. The more one knows about physical diagnosis, the better diagnostician he is certain to be.

In this text an attempt is made to describe the signs which are generally considered to be most valuable. However, some generally known useless ones were also included. This was deemed best because in examining patients the irrelevant, as well as the relevant, is always encountered, and the examiner must be familiar with both before the information assembled can be properly evaluated.

I wish to express my sincere appreciation to the following members of the faculty of the Medical College of Virginia: Dr. Herbert C. Lee, Associate Professor of Clinical Surgery, who contributed the chapter on examination of the abdomen; Dr. Randolph H. Hoge, Professor of Gynecology, who contributed the chapter on the gynecologic examination; Dr. Raymond A. Adams, of the Department of Neurology, who contributed the chapter on neurological examination; Dr. Patrick H. Drewry, Jr., Associate Professor of Psychiatry, who contributed the chapter on the psychiatric examination; Dr. Edward S. Ray, Assistant Professor of Medicine, who contributed the chapter on diseases of the lungs; Dr. Reno R. Porter, Associate Professor of Medicine, who contributed the section on diseases of the heart. Last, I wish to thank Mrs. William M. Atkins for her most helpful aid in the preparation of this volume.

HARRY WALKER

Richmond, Virginia



---

## CONTENTS

---

### SECTION I PHYSICAL DIAGNOSIS

CHAPTER I	PAGE
INTRODUCTION - - - - -	17
CHAPTER II	
RECORDING THE PHYSICAL EXAMINATION - - - - -	24
CHAPTER III	
SPEECH, GAIT, STATION - - - - -	27
Speech, 27; Gait, 27; Station, 28.	
CHAPTER IV	
HABITUS OR BUILD - - - - -	29
Posture and Position, 29; Height and Abnormal Variations in Body Size and Proportions, 32; Weight, 33.	
CHAPTER V	
BODY TEMPERATURE - - - - -	35
CHAPTER VI	
INSPECTION OF THE HEAD, THE FOREHEAD, AND THE EARS - - - - -	40
The Head, 40; The Forehead, 42; The Ears, 42.	
CHAPTER VII	
INSPECTION OF THE FACE, THE EYES, AND THE NOSE - - - - -	44
The Face, 44; Contour of the Face, 44; Color of the Face, 46; Spasm of the Face, 46; Facial Expressions, 47; The Eyes, 47; The Eyelids, 47; The Eyebrows, 48; The Conjunctivae, 48; The Globe, 49; Cornea and Sclera, 50; The Iris, 51; The Nose, 55.	
CHAPTER VIII	
INSPECTION OF THE MOUTH AND THROAT - - - - -	57
The Lips, 57; The Breath, 58; The Teeth, 58; The Gums, 59; The Tongue, 59; Sublingual Region, 62; The Buccal Cavity, 62; The Pharynx, Uvula, Hard and Soft Palates, 62; The Tonsils and Fauces, 63; Nasopharynx, 64; Adenoids, 64; The Epiglottis and Vocal Cords, 65.	

## 12 Contents

### CHAPTER IX

	PAGE
INSPECTION OF THE NECK - - - - -	66
The Larynx and Trachea, 66; Glands and Lymph Nodes, 67; Arteries and Veins, 69; Other Signs in the Neck, 70.	

### CHAPTER X

PALPATION OF THE HEAD AND NECK - - - - -	72
The Head, 72; The Neck, 73.	

### CHAPTER XI

INSPECTION OF THE UPPER EXTREMITIES - - - - -	75
The Hands, 75; The Nails, 78; The Fingers, 79; The Palms, 82; The Forearms, 82; The Arms, 83; The Shoulder, 83; Other Methods of Examining Head, Neck, and Upper Extremities, 83.	

### CHAPTER XII

PALPATION OF THE UPPER EXTREMITIES AND SPHYGMOMANOMETRY -	84
The Hand and Wrist, 84; The Pulse, 84; The Capillary Pulse, 91; Sphygmomanometry, 91; The Forearms and Arms, 94.	

### CHAPTER XIII

ANATOMIC CONSIDERATION OF THE THORAX AS RELATED TO PHYSICAL DIAGNOSIS - - - - -	96
Topographic Lines, 96; The Ribs, 97; The Lungs, 97; Regions of the Thorax and Their Underlying Structures, 100; The Heart, 101; The Cardiac Valves, 102; The Pericardium, 104; The Aorta, 104; Topographic Anatomy, 104.	

### CHAPTER XIV

INSPECTION OF THE THORAX - - - - -	107
The Normal Thorax, 107; The Chest Wall, 108; Deformities of the Thorax, 111; Bilateral Deformities, 112; Unilateral Deformities, 113; Local Deformities, 114; Movements of the Thorax, 114; Respiratory Movements of the Thorax, 114; Abnormalities of Thoracic Expansion, 119; Movements of the Thorax Due to Cardiovascular Activity, 120; The Cardiac Impulse, 120; Displacement of the Cardiac Impulse, 122; Extra-apical Pulsation, 122.	

### CHAPTER XV

PALPATION OF THE THORAX - - - - -	124
Thoracic Expansion, 124; Thoracic Vibrations, 124; Vocal Fremitus, 125; Pathologic Variations, 126; Rhonchal Fremitus, 128; Pleural Friction Fremitus, 128; Succussion Fremitus, 129; Crepitation, 129; Local Tenderness, 129; The Intercostal Spaces, 129; The Ribs and Sternum, 129; Fluctuation, 130; Local Pulsation, 130; Palpation of the Cardiac Impulse, 130; Thrills, 131; Valve Shock, 132; Pericardial Friction Fremitus, 132.	

### CHAPTER XVI

OBJECT AND TECHNIC OF PERCUSSION - - - - -	133
Mediate Percussion, 133; Palpatory Percussion, 135; Auscultatory Percussion, 135; Superficial and Deep Percussion, 136; Degree of Resistance, 136; Attributes of the Percussion Sound, 136.	

CHAPTER XVII

PERCUSSION SOUNDS - - - - -	PAGE 138
-----------------------------	-------------

CHAPTER XVIII

PERCUSSION OF THE HEART - - - - -	143
Areas of Cardiac Dullness, 143; Area of Vascular Dullness, 147.	

CHAPTER XIX

OBJECT AND TECHNIC OF AUSCULTATION - - - - -	148
--	-----

CHAPTER XX

AUSCULTATION OF THE RESPIRATORY SYSTEM - - - - -	151
Normal Respiratory Sounds, 151; Abnormal Respiratory Sounds, 152; Vocal Resonance, 153; Pathologic Variations, 154; Modified Vocal Resonance, 155; Adventitious Sounds, 155; Râles, 155; Factors Concerned in the Interpretation of Râles, 157; The Metallic Tinkle (Falling-Drop Sound), 158; Hippocratic Succussion (Splashing Sound), 158; The Pleural Friction Sound, 159; The Lung-Fistula Sound, 160.	

CHAPTER XXI

AUSCULTATION OF THE CIRCULATORY SYSTEM - - - - -	161
Object and Technic, 161; Variations of Intensity, 164; Reduplication of the Heart Sounds, 165; Gallop Rhythm (Bruit de Galop), 166; Adventitious Sounds, 167; Endocardial Murmurs, 167; Organic Murmurs, 167; Functional Murmurs, 168; Characteristics of Endocardial Murmurs, 168; Mitral Murmurs, 170; Aortic Murmurs, 172; Tricuspid Murmurs, 172; Pulmonary Murmurs, 173; Multiple Murmurs, 173; The Cardiorespiratory Murmur, 174; Pericardial Friction, 174; Pericardial Succussion Sound, 175; Vascular Murmurs, 175; Arterial Murmurs, 175; Venous Murmurs, 175.	

CHAPTER XXII

THE ABDOMEN, Herbert C. Lee, B.A., M.D., F.A.C.S. - - - - -	176
Anatomic Divisions, 176; Landmarks of the Abdomen, 181; Inspection of the Abdomen, 183; Skin, 183; Veins, 184; Pulsations, 185; The Umbilicus, 185; Peristalsis, 186; Respiratory Movements, 186; Palpation of the Abdomen, 186; Abdominal Wall, 187; Tenderness, 188; Muscular Rigidity, 188; Masses, 188; Examination of the Abdominal Viscera, 188; Spleen, 189; Liver, 190; Gall Bladder, 192; Kidneys, 192; Pancreas, 194; Epigastric Region, 194; Umbilicus, 195; Small Intestine, 195; Colon, 195; Appendix, 197; Percussion, 198; Liver, 199; Spleen, 201; Kidneys, 202; Stomach, 202; Small Intestine and Colon, 202; Tympanites, 202; Ascites, 203; Examination of the Spine, 204; Examination of Abdominal Tumors, 205; Auscultation, 206; Inguinal Region, 206; Hernias, 207; Inguinal Hernias, 208; Femoral Hernias, 210; Umbilical Hernias, 210; Ventral Hernias, 210; Rectal Examination, 211; Male Genital Organs, 212.	

CHAPTER XXIII

EXAMINATION OF THE LOWER EXTREMITIES - - - - -	213
The Foot, 213; The Leg, 214; The Thigh, 215.	

## CHAPTER XXIV

PAGE

## PHYSICAL DIAGNOSIS OF FEMALE PELVIC DISEASE, Randolph H. Hoge, M.D. 217

Preparation of the Patient, 217; Vulval Examination, 219; Vaginal Examination, 220; Bimanual Examination, 222; Rectal and Rectovaginal Examination, 225; Speculum Examination, 226; Record Form, 229.

## CHAPTER XXV

## NEUROLOGICAL EXAMINATION, Raymond A. Adams, B.S., M.D. - - - - - 230

History, 230; Examination, 231; General Impression, 231; Cranial Nerves, 231; Motor System, 235; Reflexes, 239; Deep Reflexes, 239; Superficial Reflexes, 243; Sensation, 244; Signs of Meningeal Irritation, 245; Mental Status, 245; Neurological Signs and Symptoms, 252; Peripheral Nerves and Plexuses, 252; Spinal Cord, 252; Cranial Nerves, 254; Olfactory Nerve, 254; Optic Nerve, 254; Oculomotor Nerves, 255; Trigeminal Nerve, 257; Facial Nerve, 258; Acoustic Nerve, 259; Glossopharyngeal and Vagus Nerves, 259; Spinal Accessory Nerve, 260; Hypoglossal Nerve, 260; Brain Stem, 261; Cerebellum, 261; Extrapyrarnidal System, 262; Cerebrum, 263.

## CHAPTER XXVI

## PSYCHIATRIC EXAMINATION, Patrick H. Drewry, Jr., B.S., M.D. - - - - - 266

Purpose, 266; History, 267; Present Illness, 267; Personal History, 268; Family History, 269; Mental Status, 270; Physical and Neurological Examination, 274; Summary, 274; Special Tests, 274; Glossary, 275.

## SECTION II

## DISEASES OF THE RESPIRATORY SYSTEM

Edward S. Ray, A. B., M.D., F.A.C.P.

## CHAPTER XXVII

## DISEASES OF THE TRACHEA - - - - - 276

Tracheitis, 276; Acute Tracheitis, 276; Chronic Tracheitis, 276; Tracheal Stenosis, 276.

## CHAPTER XXVIII

## DISEASES OF THE BRONCHI - - - - - 278

Acute Bronchitis, 278; Chronic Bronchitis, 279; Bronchiectasis, 280; Bronchial Asthma, 282; Bronchial Obstruction, 284; Pulmonary Lithiasis, 286.

## CHAPTER XXIX

## CIRCULATORY DISTURBANCES OF THE LUNGS - - - - - 287

Pulmonary Edema, 287; Pulmonary Embolism, 289.

## CHAPTER XXX

## DISEASES OF THE LUNGS - - - - - 292

Lobar Pneumonia, 292; Bronchopneumonia, 298; Primary Atypical Pneumonia of Undetermined Etiology, 300; Chronic Interstitial Pneumonia and Fibrosis of the Lung, 301; Tuberculosis of the Lung, 304; Exudative (Caseous, Pneumonic) Tuberculosis, 304; Fibroid (Proliferative) Tuberculosis, 305; Ulcerative Tuberculosis, 307; Tracheobronchial Tuberculosis, 310; Miliary (Hematogenous) Tuberculosis, 310; Pulmonary Syphilis, 312; Pneumoconiosis, 313; Atelectasis, 314; Emphysema,

317; Chronic Hypertrophic Emphysema, 317; Atrophic (Senile) Emphysema, 319; Compensatory Emphysema, 319; Acute Vesicular Emphysema, 320; Interstitial Emphysema, 320; Pulmonary Abscess, 321; Single Lung Abscess, 321; Metastatic Pulmonary Abscess, 323; Carcinoma of the Lung, 324; Mediastinal Masses, 328; Mycotic Diseases of the Lung, 329; Cystic Disease of the Lung, 331.

## CHAPTER XXXI

### DISEASES OF THE PLEURA - - - - - 332

Pleurisy (Pleuritis), 332; Acute Fibrinous Pleurisy, 332; Serofibrinous Pleurisy, 333; Purulent Pleurisy, 337; Diaphragmatic Pleurisy, 338; Loculated, Sacculated, or Encapsulated Pleurisy, 339; Interlobar Pleurisy, 339; Chronic Adhesive Pleurisy, 339; Hemothorax, 340; Chylothorax, 341; Hydrothorax, 341; Pneumothorax, 342; Hydropneumothorax, Pyopneumothorax, Hemopneumothorax, 343.

## CHAPTER XXXII

### DISEASES OF THE DIAPHRAGM - - - - - 345

Spasm of the Diaphragm (Hiccough), 345; Tonic Spasm of the Diaphragm, 345; Paralysis of the Diaphragm, 346; Diaphragmatic Hernia and Evisceration, 346; Subdiaphragmatic Abscess, 347.

## SECTION III

### DISEASES OF THE CIRCULATORY SYSTEM

Reno R. Porter, A.B., M.D., F.A.C.P.

## CHAPTER XXXIII

### THE DIAGNOSIS OF ABNORMALITIES OF THE HEART BEAT - - - - - 350

Normal Heart Beat, 350; Disturbances in the Pacemaker, 351; Sinus Arrhythmia, 351; Sinus Tachycardia, 352; Sinus Bradycardia, 353; Sinoauricular (SA) Block, 354; Ectopic Impulse Formation, 355; Premature Beats, 355; Paroxysmal Tachycardias, 360; Auricular Flutter, 362; Auricular Fibrillation, 364; Disturbances in the Conduction of Impulses, 366; Prolonged Conduction Time, 366; Incomplete Block, 367; Complete Block, 369; Diagnostic Theses, 371.

## CHAPTER XXXIV

### DISEASES OF THE PERICARDIUM - - - - - 372

Etiology, 372; Acute Fibrinous Pericarditis (Acute Plastic Pericarditis, Dry Pericarditis, Pericarditis Sicca), 373; Pericardial Effusion, 375; Pneumopericardium, 379; Chronic Pericarditis, 379; Chronic Adhesive Pericarditis, 380; Chronic Constrictive Pericarditis, 381.

## CHAPTER XXXV

### DISEASES OF THE MYOCARDIUM - - - - - 383

Etiology, 383; Acute Myocardial Injury, 384; Cardiac Hypertrophy, 385; Cardiac Dilatation, 388.

## CHAPTER XXXVI

### DISEASES OF THE ENDOCARDIUM AND VALVES - - - - - 391

Etiology, 391; Nonbacterial (Acute Verrucous) Endocarditis, 392; Acute Bacterial Endocarditis (Acute Septic Endocarditis, Ulcerative Endocarditis, Malignant Endo-



carditis), 394; Subacute Bacterial Endocarditis (Subacute Malignant Endocarditis, Chronic Ulcerative Endocarditis, Endocarditis Lenta), 396; Chronic Valve Disease, 397; Aortic Insufficiency (Aortic Regurgitation, Aortic Incompetence, Corrigan's Disease), 399; Aortic Stenosis, 403; Mitral Regurgitation, 406; Mitral Stenosis, 409; Pulmonary Regurgitation, 413; Pulmonary Stenosis, 414; Tricuspid Insufficiency (Tricuspid Regurgitation, Tricuspid Incompetence), 415; Tricuspid Stenosis, 417; Congenital Cardiovascular Disease, 417; Acyanotic Group, 418; Cyanotic Tardive Group, 419; The Cyanotic Group, 421.

CHAPTER XXXVII

DISEASES OF THE AORTA - - - - -	422
Aortitis, 422; Syphilitic Aortitis, 422; Aneurysm of the Aorta, 423; Dissecting Aneurysm, 428.	

CHAPTER XXXVIII

DISEASES OF THE ARTERIES - - - - -	429
The Coronary Arteries, 429; Coronary Heart Disease, 429; Angina Pectoris, 429; Coronary Occlusion, 430; Occlusion of Peripheral Arteries, 431; Arteriovenous Fistula, 432.	