# Mosby's PHYSICAL EXAMINATION HANDBOOK

SECOND EDITION

HENRY M. SEIDEL
JANE W. BALL
JOYCE E. DAINS
G. WILLIAM BENEDICT

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**HENRY M. SEIDEL, MD**
Professor Emeritus of Pediatrics
School of Medicine
The Johns Hopkins University
Baltimore, Maryland

**JANE W. BALL, RN, DrPH, CPNP**
Director, Emergency Medical Services for Children
National Resource Center
Children's National Medical Center
Washington, DC

**JOYCE E. DAINS, DrPH, MD, RN, CS, FNP**
Assistant Professor
Baylor College of Medicine
Houston, Texas

**G. WILLIAM BENEDICT, MD, PhD**
Assistant Professor, Medicine
School of Medicine
The Johns Hopkins Univ
Baltimore, Maryland



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Mosby
Dedicated to Publishing Excellence

A Times Mirror Company

*Publisher:* Sally Schrefer
*Executive Editor:* June Thompson
*Senior Development Editor:* Gail Brower
*Project Manger:* John Rogers
*Production Editor:* Cheryl Abbott
*Designer:* Pati Pye
*Manufacturing Manger:* Linda Ierardi

SECOND EDITION



Compostion by Graphic World Inc.
Lithography/color film by Graphic World Inc.
Printing/binding by World Color Book Services

Mosby, Inc.
11830 Westline Industrial Drive
St. Louis, Missouri 63146

**Library of Congress Cataloging in Publication Data**
Mosby's physical examination handbook / Henry M. Seidel . . . [et al.].
—2nd ed.
p. cm.
Includes bibliographical references and index.
ISBN 0-323-00179-3
1. Physical diagnosis—Handbooks, manuals, etc. I. Seidel, Henry M.
[DNLM: 1. Physical Examination—methods handbook. WB 39M894 1999]
RC76.M64 1999
616.07′54—dc21
DNLM/DLC
for Library of Congress 98-27273
CIP

98 99 00 01 02 / 9 8 7 6 5 4 3 2 1

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# PHYSICAL EXAMINATION HANDBOOK

# Introduction

*Mosby's Physical Examination Handbook* is a portable clinical reference on physical examination that is suitable for students of nursing, medicine, chiropractic, and other allied health disciplines, as well as for practicing health care providers. It offers brief descriptions of examination techniques and guidelines on how the examination should proceed step by step. This text is intended to be an aid to review and recall the procedures for physical examination.

The text begins with an outline of what information should be obtained for the patient's medical history and gives a brief review of the body systems. The next two chapters address assessment of the patient's mental status and nutritional status. Subsequent chapters for each of the body systems list equipment needed to perform the examination and present the techniques to be used. Expected and unexpected findings follow the description of each technique. More than 196 full color illustrations interspersed throughout the text reinforce recall of techniques and possible findings. Each chapter offers aids to differential diagnosis and also provides sample documentation.

A new feature of this edition is a section at the end of each chapter that details variations for pediatric patients. These sections are highlighted by a colored screen to make access to the information easy when you are conducting a pediatric examination. A new chapter that outlines variations of the head-to-toe examination in regard to specific age-groups of pediatric patients and a chapter that outlines what to include in a "well-woman examination" have also been added.

Chapter 18 gives an overview of the complete examination, and Chapter 21 gives guidelines for reporting and recording information gathered in the examination.

# Contents

# Pediatric Variations

CHAPTER 1

# THE HISTORY

## TAKING THE HISTORY

The following outline of what to include when taking a patient history should be viewed not as a rigid structure but a general guideline. Since you are beginning your relationship with the patient at this point, pay attention to this relationship as well as to the information you seek in the history. Be friendly and show respect for the patient. Choose a comfortable setting and help the patient get settled. Maintain eye contact and use a conversational tone. Begin by introducing yourself and explaining your role. Help the patient understand why you are taking the history and how it will be used. Once the history proceeds, explore positive responses with additional questions: where, when, what, how, and why. Be sensitive to the patient's emotions at all times.

## CHIEF COMPLAINT

The problem or symptom: reason for visit
Duration of problem
Patient information: age, sex, marital status; previous hospital admissions; occupation
Other complaints: secondary issues, fears, concerns; what made the patient seek care

## PRESENT PROBLEM

Chronologic ordering: sequence of events patient has experienced
State of health just before the onset of the present problem
Complete description of the first symptom: time and date of onset, location, movement
Possible exposure to infection or toxic agents
If symptoms intermittent, describe typical attack: onset, duration, symptoms, variations, inciting factors, exacerbating factors, relieving factors

Impact of illness: on life-style, on ability to function, limitations imposed by illness
"Stability" of the problem: intensity, variations, improvement, worsening, staying the same
Immediate reason for seeking attention, particularly for long-standing problem
Review of appropriate system when there is a conspicuous disturbance of a particular organ or system
Medications: current and recent, dosage of prescriptions, home remedies, nonprescription medications
Review of chronology of events for each problem: patient's confirmations and corrections.

## MEDICAL HISTORY

General health and strength
Childhood illnesses: measles, mumps, whooping cough, chicken pox, smallpox, scarlet fever, acute rheumatic fever, diphtheria, poliomyelitis
Major adult illnesses: tuberculosis (TB), hepatitis, diabetes, hypertension, myocardial infarction, tropical or parasitic diseases, other infections, any nonsurgical hospital admissions
Immunizations: poliomyelitis, diphtheria, pertussis, and tetanus toxoid, influenza, cholera, typhus, typhoid, bacille Calmette-Guérin (BCG), hepatitis B virus (HBV), last purified protein derivative (PPD) or other skin tests; unusual reactions to immunizations; tetanus or other antitoxin made with horse serum
Surgery: dates, hospital, diagnosis, complications
Serious injuries: resulting disability (document fully for injuries with possible legal implications)
Limitation of ability to function as desired as a result of past events
Medications, past, current, and recent medications; dosage of prescription; home remedies and nonprescription medications
Allergies: especially to medications, but also to environmental allergens and foods
Transfusions: reactions, date, and number of units transfused
Emotional status: mood disorders, psychiatric treatment
Children: birth, developmental milestones, childhood diseases, immunizations

## FAMILY HISTORY

Relatives with similar illness

Immediate family: ethnicity, health, cause of and age at death

History of disease: heart disease, high blood pressure, hypercholesterolemia, cancer, TB, stroke, epilepsy, diabetes, gout, kidney disease, thyroid disease, asthma and other allergic states; forms of arthritis; blood diseases; sexually transmitted diseases; other familial diseases

Spouse and children: age, health

Hereditary disease: history of grandparents, aunts, uncles, siblings, cousins, consanguinity

## PERSONAL AND SOCIAL HISTORY

Personal status: birthplace, where raised; home environment; parental divorce or separation, socioeconomic class, cultural background; education; position in family; marital status; general life satisfaction; hobbies and interests; sources of stress and strain

Habits: nutrition and diet, regularity and patterns of eating and sleeping; exercise: quantity and type; quantity of coffee, tea, tobacco; alcohol; illicit drugs: frequency, type, amount; breast or testicular self-examination

Sexual history: concerns with sexual feelings and performance; frequency of intercourse, ability to achieve orgasm, number and variety of partners

Home conditions: housing, economic condition, type of health insurance if any; pets and their health

Occupation: description of usual work and present work if different; list of job changes; work conditions and hours; physical and mental strain; duration of employment; pressent and past exposure to heat and cold, industrial toxins, especially lead, arsenic, chromium, asbestos, beryllium, poisonous gases, benzene, and polyvinyl chloride or other carcinogens and teratogens; any protective devices required, for example, goggles or masks

Environment: travel and other exposure to contagious diseases, residence in tropics, water and milk supply, other sources of infection if applicable

Military record: dates and geographic area of assignments

Religious preference: determine any religious proscriptions concerning medical care

Cost of care: resources available to patient, financial worries, candid discussion of issues

## REVIEW OF SYSTEMS

General constitutional symptoms: fever, chills, malaise, fatigability, night sweats; weight (average, preferred, present, change)

Diet: appetite, likes and dislikes, restrictions (because of religion, allergy, or disease), vitamins and other supplements, use of caffeine-containing beverages (coffee, tea, cola); an hour-by-hour detailing of food and liquid intake—sometimes a written diary covering several days of intake may be necessary

Skin, hair, and nails: rash or eruption, itching, pigmentation or texture change; excessive sweating, abnormal nail or hair growth

Musculoskeletal: joint stiffness, pain, restriction of motion, swelling, redness, heat, bony deformity

Head and neck:

- General: frequent or unusual headaches, their location, dizziness, syncope, severe head injuries; periods of loss of consciousness (momentary or prolonged)
- Eyes: visual acuity, blurring, diplopia, photophobia, pain, recent change in appearance or vision; glaucoma, use of eye drops or other eye medications; history of trauma or familial eye disease
- Ears: hearing loss, pain, discharge, tinnitus, vertigo
- Nose: sense of smell, frequency of colds, obstruction, epistaxis, postnasal discharge, sinus pain
- Throat and mouth: hoarseness or change in voice; frequent sore throats, bleeding or swelling of gums; recent tooth abscesses or extractions; soreness of tongue or buccal mucosa, ulcers; disturbance of taste

Endocrine thyroid enlargement or tenderness, heat or cold intolerance, unexplained weight change, diabetes, polydipsia, polyuria, changes in facial or body hair, increased hat and glove size, skin striae

Males: puberty onset, erections, emissions, testicular pain, libido, infertility

Females:

- Menses: onset, regularity, duration and amount of flow, dysmenorrhea, last period, intermenstrual discharge or bleed-

ing, itching, date of last Pap smear, age at menopause, libido, frequency of intercourse, sexual difficulties, infertility

Pregnancies: number, miscarriages, abortions, duration of pregnancy, each type of delivery, any complications during any pregnancy or postpartum period or with neonate, use of oral or other contraceptives

Breasts: pain, tenderness, discharge, lumps, galactorrhea, mammograms (screening or diagnostic), frequency of breast self-examination

Chest and lungs: pain related to respiration, dyspnea, cyanosis, wheezing, cough, sputum (character and quantity), hemoptysis, night sweats, exposure to TB; date and result of last chest x-ray examination

Heart and blood vessels: chest pain or distress, precipitating causes, timing and duration, character; relieving factors; palpitations, dyspnea, orthopnea (number of pillows needed), edema, claudication, hypertension, previous myocardial infarction, estimate of exercise tolerance, past electrocardiogram (ECG) or other cardiac tests

Hematologic: anemia, tendency to bruise or bleed easily, thromboses, thrombophlebitis, any known abnormality of blood cells, transfusions

Lymph nodes: enlargement, tenderness, suppuration

Gastrointestinal: appetite, digestion, intolerance for any class of foods, dysphagia, heartburn, nausea, vomiting, hematemesis, regularity of bowels, constipation, diarrhea, change in stool color or contents (clay-colored, tarry, fresh blood, mucus, undigested food), flatulence, hemorrhoids, hepatitis, jaundice, dark urine, history of ulcer, gallstones, polyps, tumor; previous x-ray examinations (where, when, findings)

Genitourinary: dysuria, flank or suprapubic pain, urgency, frequency, nocturia, hematuria, polyuria, hesitancy, dribbling, loss in force of stream, passage of stone; edema of face, stress incontinence, hernias, sexually transmitted disease (inquire type and symptoms, and results of serologic test for syphilis, if known)

Neurologic: syncope, seizures, weakness or paralysis, abnormalities of sensation or coordination, tremors, loss of memory

Psychiatric: depression, mood changes, difficulty concentrating, nervousness, tension, suicidal thoughts, irritability, sleep disturbances

## PEDIATRIC VARIATIONS

### Taking the history

*These are only guidelines; you are free to modify and add as the needs of your patients and your judgment may dictate.*

#### Chief complaint

A parent or other responsible adult will generally be the major resource. Still, when age permits, the child should be involved as much as possible. Remember, too, that every chief complaint has the potential of an underlying concern. What is it that really led to the visit to you? Was it just the sore throat?

#### Reliability

Note the relationship to the patient of the person who is the resource for the history and record your impression of the competence of that person as a historian.

#### Present problem

Be sure to give a clear chronologic sequence to the story.

#### Medical history

In general, the age of the patient and/or the nature of the problem will guide your approach to the history. Clearly, in a continuing relationship much of what is to be known will already have been recorded. Certainly, different aspects of the past history require varying emphasis depending on the nature of the immediate problem. There are specifics that will command attention.

Pregnancy/mother's health:
- Infectious disease; give approximate gestational month
- Weight gain/edema
- Hypertension
- Proteinuria
- Bleeding; approximate time
- Eclampsia; threat of eclampsia
- Special or unusual diet or dietary practices
- Medications (hormones, vitamins)
- Quality of fetal movements; time of onset
- Radiation exposure
- Prenatal care/consistency

Birth and the perinatal experience:

- Duration of pregnancy
- Delivery site
- Labor: spontaneous/induced; duration; anesthesia; complications
- Delivery: presentation; forceps/spontaneous; complications
- Condition at birth: time of onset of cry; Apgar scores, if available
- Birth weight and, if available, length and head circumference

Neonatal period:

- Hospital experience: length of stay, feeding experience, oxygen needs, vigor, color (jaundice, cyanosis), cry. Did baby go home with mother?
- First month of life: color (jaundice), feeding, vigor; any suggestion of illness or untoward event

Feeding:

- Bottle or breast: any changes and why; type of formula: amounts offered, taken; frequency; weight gain
- Present diet and appetite; introduction of solids, current routine and frequency, age weaned from bottle or breast, daily intake of milk, food preferences, ability to feed self; elaborate on any feeding problems

### Development

The guidelines suggested in Chapter 20, Head-to-Toe Examination: Infants, Children, and Adolescents, are complementary to the milestones listed below. Those included here are commonly used, often remembered, and often recorded in "baby books." Photographs may also be of some help occasionally.

Age when

- Held head erect while held in sitting position
- Sat alone, unsupported
- Walked alone
- Talked in sentences
- Toilet trained

School: grade, performance, learning and social problems

Dentition: ages for first teeth, loss of deciduous teeth, and first permanent teeth

Growth: height and weight at different ages, changes in rate of growth or weight gain or loss

Sexual: present status, e.g., in female, time of breast development, nipples, pubic hair, description of menses; in males, development of pubic hair, voice change, acne, emissions. Follow Tanner guides.

### Family history

Maternal gestational history, all pregnancies with status of each, including date, age, and cause of death of all deceased siblings, and dates and duration of pregnancy in the case of miscarriages; mother's health during pregnancy

Age of parents at birth of patient

Are the parents related in any way?

### Personal and social history

Personal status:

- School adjustment
- Nail biting
- Thumb sucking
- Breath holding
- Temper tantrums
- Pica
- Tics
- Rituals

Home conditions:

- Parent(s)' occupation(s)
- Principal caretaker(s) of the patient
- Food preparation, routine, family preferences (e.g., vegetarianism), who does the preparing
- Adequacy of clothing
- Dependency on relief or social agencies
- Number of persons and rooms in the house or apartment
- Sleeping routines and sleep arrangements for the child

### Review of systems (some suggested additional questions or particular concerns)

Ears: otitis media (frequency, laterality)

Nose: snoring, mouth breathing

Teeth: dental care

Genitourinary: nature of the urinary stream, forceful or a dribble

Skin, hair, and nails: eczema or seborrhea

CHAPTER 2

# Mental Status

## EQUIPMENT

- Familiar objects (coins, keys, paper clips)
- Paper and pencil

## EXAMINATION

Perform the mental status examination throughout the entire patient interaction. Focus on the individual's strengths and capabilities for executive functioning (motivation, initiative, goal formation, planning and performing work or activities, self-monitoring, and integration of feedback from various sources to refine or redirect energy). Interview a family member or friend if you have any concerns about the patient's responses or behaviors.

Use a mental status screening examination for health visits when no cognitive, emotional, or behavior problems are apparent. Information is generally observed during the history in the following areas:

*Appearance and Behavior*
- Grooming
- Emotional status
- Body language

*Cognitive abilities*
- State of consciousness
- Memory
- Attention span
- Judgment

*Emotional stability*
- Mood and feelings
- Thought process and content

*Speech and language*
- Voice quality
- Articulation
- Comprehension
- Coherence
- Ability to communicate

| TECHNIQUE | FINDINGS |
|---|---|
| **Mental Status and Speech Patterns** | |
| Observe physical appearance and behavior | |
| ■ *Grooming* | **UNEXPECTED:** Poor hygiene, lack of concern with appearance, or inappropriate dress for season, gender, or occasion in previously well-groomed patient. |
| ■ *Emotional status* | **EXPECTED:** Patient expressing concern with visit appropriate for emotional content of topics discussed.<br>**UNEXPECTED:** Behavior conveying carelessness, indifference, inability to sense emotions in others, loss of sympathetic reactions, unusual docility, rage reactions, agitation, or excessive irritability. |
| ■ *Body language* | **EXPECTED:** Erect posture and eye contact (if culturally appropriate).<br>**UNEXPECTED:** Slumped posture, lack of facial expression, inappropriate affect, excessively energetic movements, or constantly watchful eyes. |
| Investigate cognitive abilities | |
| ■ *The Mini-Mental State Examination*<br>**Use this examination to quantify cognitive function or document changes** **(See pp. 12-13.)** | **EXPECTED:** Score of 21-30.<br>**UNEXPECTED:** Score of 20 or less. Significant memory loss, confusion, impaired communication. |
| ■ *State of consciousness* | **EXPECTED:** Oriented to time, place, and person, and able to appropriately respond to questions and environmental stimuli. |