

A Influence Graph for the Physical Examination of Children

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In pediatrics, physical examination is the basis to start any intervention (Table 1a). However, some procedures *influence* certain portions of the examination. For example, running can influence blood pressure and heart rate (Table 1b). ‘Influence Graphs’ were presented showing various procedures

Table 1a. Techniques used in physical examination by a medical professional

Technique of Physical Examination	Physical Sense	Underlying Concept
Inspection	Sight	Symmetry
Auscultation	Hearing	Inverse problem
Percussion	Hearing, touch	Inverse problem
Palpation	Touch	Properties of material, body temperature
Olfaction	Smell	Inverse problem

Table 1b. Instruments/Procedures used in physical examination by a medical professional

Instrument	Purpose
Stethoscope	Auscultation (heart, lungs, abdomen), blood pressure
Otoscope	Ear examination
Ophthalmoscope	Eye examination
Thermometer	Recording of temperature
Electrocardiograph (ECG or EKG)	Recording of electrical activity of heart
Electroencephalograph (EEG)	Recording of electrical activity of brain
Electromyograph (EMG)	Recording of electrical activity of muscles
Magnetocardiograph (MCG or MKG)	Recording of magnetic activity of heart
Mangnetoencephalograph (MEG)	Recording of magnetic activity of brain
Mangnetomyograph (MMG)	Recording of magnetic activity of muscles

influenced by others. Protocols of physical examination (Fig. 1a-d) need to be designed in such a way that interacting procedures are performed in a laid-down sequence, or during separate sessions. This software might be a useful training tool for the students and the residents, alike.

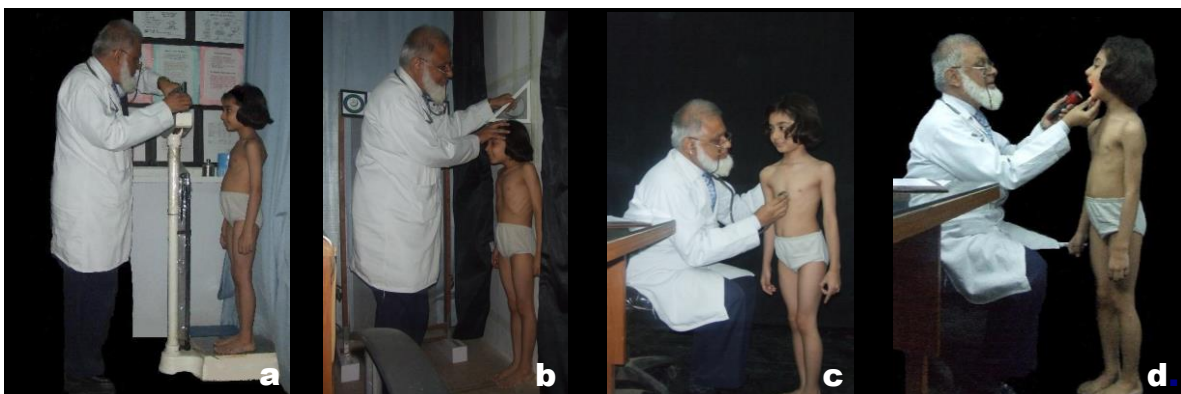


Fig. 1a-d. Anthropometry (mass and height recording), heart-sound auscultation and mouth inspection for signs of anemia

Keywords: Interacting procedures • Pediatrics • Physical-examination protocols

Web address of this document: <https://www.ngds-ku.org/Presentations/Influence.pdf>