

Introduction

Taking an adequate occupational history is an important tool for identifying whether an illness or condition is occupational (ie, whether it is work related).

As with other medical history taking, two important lines of inquiry are questions designed to uncover the symptoms that may point to existing underlying pathology, and background information that may result in concluding there is a higher likelihood of the presence of such pathology.

When taking occupational and environmental medical histories, it is just as important to ask which patient has the symptoms as it is to ask what symptoms the patient has.

The occupational history is an integral part of a thorough medical interview, but the history may be difficult to interpret. The occupational history can be used on four levels:

- Basic—knowledge of the patient’s current occupation and industry, and implications of the present illness for employment
- Diagnostic—investigate an association with the present illness, for compensation considerations
- Screening—individual surveillance
- Comprehensive—investigate complex problems in depth, usually in consultation with other occupational health professionals

If you decide that a detailed (comprehensive) occupational history is not necessary, it is still important to obtain the simple, basic, and screening occupational histories on all patients to help determine job type and potential exposures.

The occupational history

When taking an effective occupational history, consider asking questions to determine:

- The organ system and type of pathological process involved
- The exposure
- The patient’s job description; a job title is not adequate and a full description of what the job entails is a bare minimum, which includes the question, “what do you do at work and how do you do it?”
- The identity of any chemical exposures or other hazards (colloquial terms may be used for chemicals; for example, ‘trike’ for trichloroethylene, ‘perc’ for

perchloroethylene, or 'monkey dung' for brown asbestos); confirming the identity of a chemical might involve asking the patient to bring in a label or a Material Safety Data Sheet (MSDS); for example, if the history suggests exposure to formaldehyde, a drum label or MSDS could confirm

- The duration and intensity of exposure; determining when exposure started, finished, and how often it occurred may be tedious but not difficult
- Determining the intensity of exposure by history taking is difficult; use these questions as guides:
 - How was the task performed? (eg, did the patient apply an adhesive with a paint brush, while leaning over the area)
 - Was the dust concentration so thick that no one could see through it clearly?
 - Was the noise so loud that communication was difficult?
 - What quantity of the chemical was handled?
 - Was there any attempt at segregating harmful tasks, or providing local exhaust ventilation?
 - Was personal protection used? (different categories of harmful agents tend to have different and specific forms of personal protection; for example, masks and respirators designed for respirable dust will not protect from sulphur dioxide or solvent exposure)
 - What control measures to reduce exposures are in place? (eg, local exhaust ventilation and personal protective equipment need to be regularly maintained; ask whether they are maintained and who is responsible for the maintenance)

Processing historical information and further questions

There are a number of similarities between processing information in a clinical occupational medical history and making decisions regarding criteria for causal association that physicians encounter in epidemiology. Analogies exist between determining causality in an epidemiologic context¹ in population studies (groups) and when dealing with an individual patient in a clinical context.

¹ Bradford Hill criteria, <https://www.edwardtufte.com/tufte/hill>.

The analogies are:

- **Temporality:** Relative to exposure, when do/did the symptoms start?
- **Reversibility:** Do the symptoms improve when the patient is no longer exposed? (eg, on holiday)
- **Dose-response/gradient:** Are the symptoms worse when performing specific tasks/in areas with high exposure?
- **Strength of association:** Do other workers/patients suffer from similar symptoms associated with the same exposure?
- **Specificity:** What other exposure/causal factor could be responsible for the same symptoms? (eg, smoking)
- **Consistency:** Are there other reports of the same symptoms associated with or caused by the same exposure?
- **Analogy:** Even if there is no evidence of identical exposure, circumstance, or chemical structure, resulting in the same symptoms, have other agents/chemicals of similar structure been implicated in producing the same symptoms? (eg, dermatitis, asthma)
- **Biological plausibility:** Do the symptoms add up in terms of what is known about the mechanisms of disease?

Conclusion

While taking an occupational history, explore various avenues:

- Confirm suspicions by seeking links between various aspects of the history
- Determine evidence of corroboration, such as similar symptoms in other workers
 - Explore alternative explanations (eg, is the patient a smoker?; does the patient engage in any do-it-yourself activities at home, hobbies, or moonlighting?)
- Formulate a working diagnosis in your mind
- Ask further relevant probing questions, such as:
 - What is the patient's attitude?
 - What is the employer's attitude?

- Did the patient receive an MSDS? (ask to see it on follow-up visit)

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