

International Hazard Datasheets on Occupation



Photographer medical

What is a Hazard Datasheet on Occupation?

This datasheet is one of the International Datasheets on Occupations. It is intended for those professionally concerned with health and safety at work: occupational physicians and nurses, safety engineers, hygienists, education and Information specialists, inspectors, employers' representatives, workers' representatives, safety officers and other competent persons.

This datasheet lists, in a standard format, different hazards to which photographer medicals may be exposed in the course of their normal work. This datasheet is a source of information rather than advice. With the knowledge of what causes injuries and diseases, it is easier to design and implement suitable measures towards prevention.

This datasheet consists of four pages:

- Page 1: Information on the most relevant hazards related to the occupation.
- Page 2: A more detailed and systematized presentation on the **different hazards** related to the job with indicators for preventive measures (marked as numbered shields and explained on the third page).
- Page 3: Suggestions for **preventive measures** for selected hazards.
- Page 4: **Specialized information**, relevant primarily to occupational safety and health professionals and including information such as a brief job description, a list of tasks, notes and references.

Who is a medical photographer?

A medical photographer is a highly trained worker who operates miscellaneous photographic equipment, mainly in hospitals and medical schools; prepares and sets up patients, lab animals, samples of organs and tissues, etc., for photography; and develops and prints photographic films, thus assisting medical practitioners, students, and researchers in their work.

What is dangerous about this job?

- Medical photographers are exposed to many of the environmental hazards of work in hospitals, especially infectious diseases.
- Medical photographers are exposed to biomedical laboratory chemicals and to cleaning, disinfecting, and sterilizing agents that may damage the skin, mucous membranes, and respiratory system.
- Photo-processing chemicals may be toxic upon ingestion and may affect the skin, eyes, and respiratory system upon contact.
- Slips, trips, and falls are a frequent danger, especially on wet floors, under poor illumination, or when carrying heavy and bulky illumination and photographic equipment.

Hazards related to this job

Accident hazards 	<ul style="list-style-type: none"> Slips, trips, and falls, especially in cluttered passages, on surfaces made slippery by spilled liquids, under conditions of poor illumination, or when carrying heavy and bulky photographic or illumination equipment. 	1
	<ul style="list-style-type: none"> Falls from ladders when setting up overhead illumination or cameras, when mounting ladders while carrying heavy objects, or when using damaged or unstable ladders. 	2
	<ul style="list-style-type: none"> Damage to legs and toes caused by falling objects, e.g., from overturned tripods. 	1
	<ul style="list-style-type: none"> Hand cuts when handling photographic film and paper, especially in the dark. 	
	<ul style="list-style-type: none"> Cuts, burns, or damage to the eyes from burst lamps or from direct contact with strong light sources; this may also cause ignition of flammable materials. 	
	<ul style="list-style-type: none"> Bites, stings, and scratches from laboratory animals while setting them up for photographing. 	
	<ul style="list-style-type: none"> Electric shock caused by contact with defective electrical equipment (especially portable illumination equipment), cables, etc. 	3
	<ul style="list-style-type: none"> Injury as a result of accidental contact, spillage, or inhalation of darkroom chemicals. 	
Physical hazards 	<ul style="list-style-type: none"> Exposure to heat from illumination equipment or from drying equipment in the darkroom. 	
	<ul style="list-style-type: none"> Lack of proper ventilation in the darkroom. 	
	<ul style="list-style-type: none"> Cold temperatures in the storage rooms. 	
	<ul style="list-style-type: none"> Exposure to ultraviolet light. 	
Chemical hazards 	<ul style="list-style-type: none"> Exposure to a wide variety of photographic chemicals and their vapors and fumes may cause skin rashes, dermatitis, irritation of the eyes and mucous membranes, acute or chronic irritation of the respiratory system, various kinds of allergies, etc. [See Note 1]. 	4 5 6 7 8 9
	<ul style="list-style-type: none"> Medical photographers are exposed to all of the chemical hazards of a hospital/medical care/medical research setup [See Note 2]. 	
Biological hazards 	<ul style="list-style-type: none"> Infections due to the exposure to blood, body fluids or tissue specimens possibly leading to blood-borne diseases such as HIV, Hepatitis B and Hepatitis C. 	10 11 12 13
	<ul style="list-style-type: none"> Medical photographers are exposed to all of the biological hazards of a hospital/medical care/medical research setup [See Note 2]. 	
Ergonomic, psychosocial and organizational factors 	<ul style="list-style-type: none"> Eye strain as a result of moving frequently from the dark or semi-dark into strong light; handling small objects or photographic films or slides; etc. 	
	<ul style="list-style-type: none"> Musculoskeletal problems and fatigue as a result of long periods of standing, bending, etc. 	
	<ul style="list-style-type: none"> Overexertion and strains as a result of carrying or moving heavy and/or bulky objects, such as cameras, tripods, illumination equipment, transformers etc. 	14
	<ul style="list-style-type: none"> Exposure to severely traumatized patients, multiple victims of a disaster or catastrophic event or severely violent patients may lead to post-traumatic stress syndrome. 	15

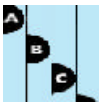
Preventive measures

- 1 Use safety shoes with non-slip soles.
 - 2 Inspect ladders before climbing; never climb on a shaky ladder or a ladder with slippery rungs.
 - 3 Check electrical equipment for safety before use; take faulty or suspect electrical equipment to a qualified electrician for testing and repair.
 - 4 Install and use effective exhaust ventilation in the darkroom.
 - 5 Wear an appropriate respirator when exposed to solvent fumes.
 - 6 Wear protective goggles when handling, mixing, or diluting concentrated or corrosive solutions such as glacial acetic acid; provide eyewash bottles or fountains for use if needed.
 - 7 Seek proper medical attention if a skin rash develops; stop working in the darkroom until the rash heals.
 - 8 Avoid skin contact with photographic solutions; use neoprene gloves to protect the hands, and tongs to handle films or papers in processing tanks.
 - 9 Do not smoke, eat, or drink in the darkroom.
 - 10 Follow established appropriate infection control precautions assuming blood, body fluids and tissue are infectious
 - 11 Routinely use barriers (such as gloves, eye protection (goggles or face shields) and gowns)
 - 12 Wash hands and other exposed skin surfaces after coming into contact with blood or body fluids
 - 13 Follow appropriate procedures in handling and disposing of sharp instruments or needles
 - 14 Learn and use safe lifting and moving techniques for heavy or awkward loads; use mechanical aids to assist in lifting.
 - 15 Procedures and counselling services should be available to workers exposed to post-traumatic stress syndrome
-

Specialized information

Synonyms Biological photographer; hospital photographer; medical laboratory photographer; medical research photographer; medical school photographer; operating-room photographer.

Definitions and/or description Photographs medical, biological, and allied phenomena to provide illustrations for scientific publications, records, and research and teaching activities. Makes still and motion picture reproductions of patients, anatomical structures, gross and microscopic specimens, plant and animal tissues, and physiological and pathological processes. Makes copies of x-rays and similar materials utilizing photographic techniques such as time-lapse and ultra-speed pictures and ultraviolet or infrared light to produce a visible record of normally invisible phenomena. Processes photosensitive materials to make transparencies, lantern slides, photomontages, and color prints. Engages in research activities related to biological photography and presentation of scientific data. May design special equipment and processing formulas. May specialize in a particular technique, such as cinematography, color photography, or photomicrography. May specialize in a particular field, such as medicine, and be designated medical photographer (medical ser.) [DOT].



Related and specific occupations Cameraman; photographer; photographic laboratory worker; photographic technician; scientific photographer.

Primary equipment used Photographic cameras, tripods, illuminating equipment (lamps, reflectors, shades, etc.), light meter, darkroom equipment (enlarger, developing machine or trays, safety lights, drying equipment, glossing equipment, cutter, etc.)

Workplaces where the occupation is common Biological and medical research institutes, clinics and hospitals, medical and dentistry schools, medical publishing houses, specialized medical photography services

- Notes**
1. Examples of hazardous darkroom chemicals and some of their effects on health include: developers which contain chemicals which may cause contact dermatitis, anemia, hemoglobinemia, depression of the nervous system, and renal failure; acetic and other acids, as well as some strong alkalis, which may cause severe damage to the eyes and irritation of the nose, throat, and lungs; silver salts dissolved in developer solutions which may cause skin spots and skin discoloration; and vapors and gases such as triethanolamine, ammonia, or sulfur dioxide, released from certain developers, which may constitute a respiratory hazard. There is a risk of generation of cyanides and chlorine as byproducts of chemical reactions.
 2. The biological or chemical hazards in a hospital are too numerous to list. Examples of hazards in specific settings include: exposure to blood-borne pathogens (causing, e.g., AIDS, hepatitis) in an operating room, to airborne microorganisms in a tuberculosis ward, to latex proteins that may cause sensitization to latex, to various disinfecting and sterilizing agents that may cause irritation of the eyes and respiratory tract, to hazardous body fluids, etc.



References Encyclopaedia of Occupational Health and Safety, 3rd Ed., ILO, Geneva, 1983, Vol.2, p. 1684-1690.



Encyclopaedia of Occupational Health and Safety, 4th Ed., ILO, Geneva, 1998, Vol.3, p. 85.10, 85.13, 96.10.

Occupational Diseases- a Guide to their Prevention. DHEW-NIOSH Publ. 77-181,1977. 608 pp. (Multiple pages - see entry "Photographer" in index).

Production of this hazard hatasheet was sponsored by Israel Institute for Occupational Safety and Hygene