Protocol applicable to medical formalities prior to employment at CERN

This document details the medical requirements to be fulfilled according to the exposure to occupational risks and hazards communicated in the job description.

More than one protocol may be necessary, for example when the position to be filled may involve exposure to several occupational risks and hazards.

The medical report, blood test results and additional tests (if any) must be sent to CERN's Medical Service. This information will be treated confidentially and will be added to the individual medical file.

Please note that an electrocardiogram with its interpretation is systematically required for all applicants over 45 years of age exposed to occupational risks and hazards requiring specific medical formalities.

Professional exposure to risks and hazards requiring specific medical requirements

a. Asbestos :

The medical report must include the following elements and the tests mentioned below

- **Previous exposure (occupational history)**

To be determined by anamnesis for the identification of previous occupations presenting a risk of exposure to asbestos.

- **Medical history**

In addition to personal and family history and questioning, this includes smoking habits and any respiratory symptoms. Preventive measures used during work and their degree of compliance, including personal hygiene measures and personal protective equipment.

- **Clinical examination**
  - Inspection. This includes the search for signs indicating the presence of Digital Hippocratism.
  - Cardiopulmonary auscultation. This includes a search for crepitants.

- **- Biological monitoring and specific additional studies**
  - Complete blood count.
  - Liver tests: total bilirubin, alkaline phosphatase, GOT, GPT and Gamma GT.
  - Urea and creatinine, eGFR CKD-EPI creatinine

- Glucose

- **Pulmonary study**
  - Spirometry
  - Chest X-ray and interpretation.

b. Lead:

- **Work history**

The candidate's work history should be detailed, and particular attention should be paid to any previous exposure to lead. Previous exposure to other toxic agents affecting the hematopoietic, renal, hepatic and central nervous systems (benzene, PCBs, mercury, phosphorus, cadmium, HAD, solvents, etc.) should also be detailed.

- **Anamnesis**

The patient's history should highlight any personal history of gastrointestinal, hepatic, cardiovascular, renal, hematological and neuropsychiatric pathology, as these are the target organs where symptoms of lead toxicity may manifest themselves.

It is also important to know the worker's personal habits with regard to alcohol consumption, smoking (quantified) and the use of medication.

- **Biological monitoring and specific additional studies**

The following analytical determinations must be carried out:

  - Complete blood count.
  - Liver tests: total bilirubin, alkaline phosphatase, GOT, GPT and Gamma GT.
  - Urea and creatinine, eGFR CKD-EPI creatinine
  - Glucose
  - Blood lead. (Blood lead levels)

c. Carcinogens, mutagens or agents toxic to reproduction:

- **Previous exposure to chemicals classified as carcinogenic, mutagenic or toxic to reproduction, defining:**
  - Products used.
  - Years of exposure.
  - Hours of exposure per week.
  - Number of weeks of exposure.
  - Use or presence of preventive measures, with a detailed description.

- **Biological monitoring and specific additional studies**
    - Complete blood count.
    - Liver tests: total bilirubin, alkaline phosphatase, GOT, GPT and Gamma GT.
    - Urea and creatinine, eGFR CKD-EPI creatinine
    - Glucose

- **Pulmonary study**
    - Spirometry

d. Ionizing radiation CAT A

- **Occupational history.**
    - Previous exposure (occupational history). This section includes jobs held in the past (specifying the period during which each was held), indicating the main hazards present and the company's activity.
- **Current exposure to risk (if currently working with radiation): job description, time spent at work, preventive measures adopted.**
    - Company name and address.
    - Detailed description of current job and associated risk (radiation and/or contamination). Time spent in the workplace with exposure to the risk.
    - Protective measures used.

- **Dosimetric information :**
    - Monthly doses
    - Cumulative dose (12 months) to date of annual examination.
    - Cumulative dose over a 5-year period.
    - Dose during working life.
    - Overexposure.
    - History of diagnostic studies or treatment with ionizing radiation (indicate dose if known).
- **Biological monitoring and specific additional studies**
    - Complete blood count.
    - Reticulocytes
    - Liver tests: total bilirubin, alkaline phosphatase, GOT, GPT and Gamma GT.
    - Urea and creatinine, eGFR CKD-EPI creatinine
    - Glucose

e. The risk of falling from heights during scaffolding assembly and dismantling operations.

- Biological monitoring and specific additional studies
  - Complete blood count.
  - Liver tests: total bilirubin, alkaline phosphatase, GOT, GPT and Gamma GT.
  - Urea and creatinine, eGFR CKD-EPI creatinine
  - Glycated haemoglobin, Hb A1c
- Additional complementary tests
  - Electrocardiogram with interpretation
  - Visual acuity test + color perception test + peripheral vision test
  - Audiometry

f. Authorization to drive certain mobile work equipment or equipment used for lifting loads (lifting equipment, overhead cranes, aerial work platforms, etc.).

- Biological monitoring and specific additional studies
  - Complete blood count.
  - Liver tests: total bilirubin, alkaline phosphatase, GOT, GPT and Gamma GT.
  - Urea and creatinine, eGFR CKD-EPI creatinine
  - Total cholesterol, HDL and LDL
  - Glycated haemoglobin, Hb A1c
- Additional complementary tests
  - Electrocardiogram with interpretation
  - Visual acuity test + color perception test + peripheral vision test
  - Audiometry

g. Workers authorized to carry out operations on or near electrical installations (> 1000 Volt AC or 1500 Volt DC)

- Biological monitoring and specific additional studies
  - Complete blood count.
  - Liver tests: total bilirubin, alkaline phosphatase, GOT, GPT and Gamma GT.
  - Urea and creatinine, eGFR CKD-EPI creatinine
  - Glycated haemoglobin, Hb A1c
- Additional complementary tests
  - Electrocardiogram with interpretation

- Visual acuity test + color perception test + peripheral vision test
- Audiometry

h. Workers exposed to E-magnetic fields under certain exposure conditions

- Biological monitoring and specific additional studies
  - Complete blood count.
  - Liver tests: total bilirubin, alkaline phosphatase, GOT, GPT and Gamma GT.
  - Urea and creatinine, eGFR CKD-EPI creatinine
  - Glycated haemoglobin, Hb A1c
- Additional complementary tests
  - Electrocardiogram with interpretation
  - Visual acuity test + color perception test + peripheral vision test
  - Audiometry

i. Shift workers

- **Biological monitoring and specific additional studies**
  - Complete blood count.
  - Liver tests: total bilirubin, alkaline phosphatase, GOT, GPT and Gamma GT.
  - Urea and creatinine, eGFR CKD-EPI creatinine
  - Total cholesterol, HDL and LDL
  - Glycated haemoglobin, Hb A1c
- **Additional complementary tests**
  - Electrocardiogram with interpretation

l. Firefighters (normally already covered in other risks).

- **Biological monitoring and specific additional studies**
  - Complete blood count.
  - Liver tests: total bilirubin, alkaline phosphatase, GOT, GPT and Gamma GT.
  - Urea and creatinine, eGFR CKD-EPI creatinine
  - Total cholesterol, HDL and LDL
  - Glycated haemoglobin, Hb A1c
  - Anti-hepatitis B antibodies (anti-HBs)

- Additional complementary tests

    - Electrocardiogram with interpretation
    - Visual acuity test + color perception test + peripheral vision test
    - Audiometry
    - Spirometry
- Stress test (pool of candidates)
- Last certificate of aptitude for operational firefighting. (With their respective complementary tests if possible)