

Diver Periodic Health Assessment and Medical Administration

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Amendments

2022-04-29: Complete revision to policy. This instruction supersedes Med Dir 2/05 and CFMO 27-07.

Background

1. The purpose of the Diver Periodic Health Assessment (PHA) is similar to the PHA for all service members. However, the health of those whose work directly impacts diving operations in this group may lead to critical incidents, accidents, and even fatalities. While undersea medicine clinicians have been specially trained in the field of undersea medicine, all clinicians employed in the support of CAF divers should, when necessary, be prepared to treat divers. This instruction provides direction to all personnel regarding the requirements and procedures for conducting Diver Periodic Health Assessments.
2. This Instruction applies to all CAF personnel, Department of National Defence (DND) Public Servants, contractors and sub-contractors who provide health services to CAF members.
3. A list of abbreviations and definitions used in this instruction are available in Annex A and Annex B respectively.

General Direction - PHAs

Classification of Diving Trades

4. For the purpose of this Instruction, CAF diving occupations will be divided into Group A and B, on the basis of different exposures and safety implications for the various occupations. Group A occupations include Divers and Group B occupations include the Diving Support Trades. Group A Divers are further divided into Shallow Water Divers (SWDs) who usually dive to a depth of no more than 15 meters and never exceed 30 meters, and Deep Water Divers (DWDs) who may dive to depths >30 meters and/or beyond no-Decompression limits.

- a. Group A Divers – Deep Water Divers
 - i. Clearance Divers (CD)
 - ii. Port Inspection Divers (PID)*
 *While PID Class I divers are limited to 15m, for the purposes of this instruction all PIDs are considered deep divers due to the expectation of progression within the trade
- b. Group A Divers -Shallow Water Divers
 - i. Ship Divers (SD)
 - ii. Combat Divers
 - iii. Search and Rescue Divers (SAR)
 - iv. Special Operation Forces Divers (SOF)
- c. Group B Diving Support Trade
 - i. Diving Medical Officers (DMOs)
 - ii. Diving Physician Assistants (DPAs)
 - iii. Diving Nurse Practitioners (DNPs)
 - iv. Diving Medical Technicians (DMTs)
 - v. Aviation Physiology Technicians (Av Phys Techs)
 - vi. BioScience Officers (BIO)
 - vii. Other MOSIDS who may require qualification as Inside Attendant

PHA Examination Types

5. For administrative purposes, three types of medical assessments exist for Divers and Diving Support Trades which differ in nature and content: Initial Dive Selection PHA, Type 1 PHA with Examination (long) and Type 2 PHA screening (short). Additional special medical assessments are done at CFEME for some trades such as SAR-Tech and Clearance divers.
6. All Dive PHAs consist of a Part 1 (Medical Examination Center) and Part 2 Clinician Assessment components, which vary depending on the type of Dive PHA.
 - a. A type 1 Dive PHA is a more in-depth assessment, which requires an in-person examination.
 - b. A type 2 Dive PHA is a screening PHA and does not require in-person assessment unless clinically indicated after file review by the reviewing clinician.
7. Detailed medical requirements for Initial Dive selection PHA and Type I/Type II Diver PHAs can be found in Undersea Medicine Guideline (UMG) 100-01.

PHA Schedule

8. An Initial Dive Medical, with review and approval by the appropriate authority, is required for any new CAF diver or diving support trade candidate.
9. After initial dive medical approval:
 - a. Group A Divers shall commence an alternating cycle of type II and Type I PHAs each year as per UMG 100-01.

- b. Group B Divers shall commence an alternating cycle of type 2 PHAs every year, with a type I PHA completed as per CF H Svcs Gp PD 4000-01 Periodic Health Assessment (every 5 years up to 40 years old, then every 2 years thereafter) as per UMG 100-01.
- 10. Re-review and approval by appropriate approval authority is required when there is a transition from:
 - a. Group B to Group A Diver Trade; and
 - b. Group A shallow to deep trades.

Examination, Review, and Approval Authorities

- 11. Diver medical examinations must be conducted by appropriately current and qualified clinicians (with ADWU or AEHI qualification codes) as per ref A
- 12. Minimum examining, reviewing, consulting, and clinician requirements, as well as approval authorities are provided in UMG 100-01.

References

- A. UMG 100-01 ([link](#))

Annex A - Acronyms

1. The following table contains abbreviations used in this instruction and/or commonly used in Diving Policy and Guidance Documents.

Abbreviation	Term in Full
ADMO	Advanced Diving Medical Officer
ADPA	Advanced Diving Physician Assistant
AGE	Arterial Gas Embolism
AUMB	Aerospace and Undersea Medical Board
BAvMed	Basic Aviation Medicine
bc-TTE	Bubble contrast – Transthoracic Echocardiogram
BDMO	Basic Diving Medical Officer
BDNP	Basic Diving Nurse Practitioner
BDPA	Basic Diving Physician Assistant
CABA	Compressed Air Breathing Apparatus
CAFDESG	Canadian Armed Forces Diving Effectiveness Steering Group
CDAC	Clearance Diver Assessment Centre
CDM	Consultant in Diving Medicine
CDSM	Consultant in Diving and Submarine Medicine
CAF	Canadian Forces/Canadian Armed Forces
CFEME	Canadian Forces Environmental Medicine Establishment
CFHIS	Canadian Forces Health Information System
CF H Svcs	Canadian Forces Health Services
CF H Svcs Gp	Canadian Forces Health Services Group
CF HCC	Canadian Forces Health Care Centre
CFB	Canadian Forces Base
CI Div	Clearance Diver
CLDO	Clearance Diving Officer
D Med Pol	Director – Medical Policy
DCS/DCI	Decompression Sickness / Decompression Illness
D Dive S	Directorate of Diving Safety
DWD	Deep Water Diver
DMO	Diving Medical Officer
DNP	Diving Nurse Practitioner
DPA	Diving Physician Assistant
DOHSWG	Diving Occupational Health and Safety Working Group
DON	Dysbaric Osteonecrosis
DRDC	Defence Research & Development Canada

ECG	Electrocardiogram
FSMO	Fleet Support Medical Officer
HCP	Health Care Provider
IAW	In accordance with
In Att	Inside Attendant (also known as Inside Tender)
JTF	Joint Task Force
LBS	Long Bone Series
MEL	Medical Employment Limitation
MOC	Military Occupation Code
MOSID	Military Occupational Structure Identification
NCM	Non-Commissioned Member
No-D	No Decompression
NP	Nurse Practitioner
OT	Occupational Transfer
PA	Physician Assistant
PFT	Pulmonary Function Test
PHA	Periodic Health Assessment
PID	Port Inspection Diver
PSO	Personnel Selection Officer
PTT	Pressure tolerance testing / training
SAR	Search and Rescue
SWD	Shallow Water Diver
US-AUMB	Undersea Subcommittee of the Aerospace & Undersea Medical Board

Annex B - Undersea Definitions

1. *ADMO* - A Medical Officer (physician) who has completed the Diving Medicine Advanced Course.
2. *ADPA* - A Physician Assistant (PA) who has completed the Diving Medicine Advanced Course.
3. *ADNP* – A Nurse Practitioner (NP) who has completed the Diving Medicine Advanced Course.
4. *AGE* - A severe diving-related pathologic condition occurring in the body when gas bubbles gain access to the arterial system, causing blockage of blood flow and leading to local hypoxia and cellular death.
5. *AUMB / US-AUMB* - The Aerospace and Undersea Medical Board (AUMB) is the CAF's advisory board in these areas. While all CDSMs plus RCN Surg are also members of the plenary AUMB, by themselves they comprise the Undersea Subcommittee of the AUMB (US-AUMB).
6. *BDMO* - A Medical Officer (Physician) who has completed the Diving Medicine Basic course.
7. *BDPA* - A Physician Assistant who has completed the Diving Medicine Basic course.
8. *BDNP* – A Nurse Practitioner who has completed the Diving Medicine Basic course.
9. *CAFDESG* – convened yearly by D Dive S; their mission is to manage and make recommendations on CAF diving program to ensure teams are safe, capable, and ready to execute their mission.
10. *Diving Support Trades* – are trades who receive additional training in support of Group A divers. These may include Diving Medical Officers (DMOs), Diving Physician Assistants (DPAs), Diving Nurse Practitioners (DNPs), Diving Medical Technicians (DMTs). Aviation Physiology Technicians (Av Phys Techs). BioScience Officers (BioSci O) and Other MOSIDS who may require qualification as Inside Attendant.
11. *DOHSWG* – a subordinate working group of the CAFDESG. The DOHSWG provides a joint forum for diving leadership, naval technical and health services personnel to review and address medical/safety standards and incidents.
12. *CD/CLDO* – Clearance Divers and Clearance Diving Officers (MOSID 00342 and 00207) are trained to depths up to 100m on various gas mixtures using a range of CABA, surface-supplied and rebreather apparatus. Duties may include mine countermeasures, explosive ordnance disposal (EOD), demolition, seabed search and salvage, underwater construction/repair, and experimental diving.

13. *CDSM* – an ADMO who has undergone additional post-graduate training in diving and hyperbaric medicine. On behalf of US_AUMB, CDSMs provide expert opinion and medical support to all operational diving organizations within the CAF as well as H Svcs.
14. *CFEME* – Canadian Forces Environmental Medicine Establishment is a CF H Svcs unit co-located with DRDC in Toronto. As hosts of AUMB, it represents the center of Aerospace & Undersea medical expertise for the CAF.
15. *DCI* – Decompression Illness is a descriptive term that refers to the whole spectrum of bubble-related illnesses including AGE and DCS
16. *DCS* – Decompression Sickness is a pathophysiological term for a condition resulting from inert gas bubble formation in the tissues and circulatory system secondary to a decrease in ambient pressure.
17. *DMO* – a Diving Medical Officer is an inclusive term referring to both BDMOs and ADMOs.
18. *DPA* – a Diving Physician Assistant is an inclusive term referring to both BDPAs and ADPAs.
19. *DNP* – a Diving Nurse Practitioner an inclusive term referring to both BDNPs and ADNPs.
20. *DON* – Dysbaric Osteonecrosis is bony necrosis that results from dysbaric environment. It is thought to be a delayed manifestation or long-term effect of inadequate decompression (e.g. DCS).
21. *DWD* – Deep Water Divers are divers who are authorized to routinely dive to depths greater than 15m (but do not exceed 100m) and may dive outside of the no-D limits. They include Regular Force Clearance Divers (MOSID 00342), Clearance Diving Officers (CLDOs; MOSID 00207), and level 2-4 Reserve Force Port Inspection Divers (PIDs; MOSID 00226).
22. *PID* - Port Inspection Divers are CAF Reserve Divers (MOSID 00226) who are qualified to dive to depths of 45m; their primary occupation is that of diver. They sometimes employ staged decompression and certain breathing apparatus not used by SWDs. There are 4 classes of PIDs: Class 1 (QL1) are designated SWDs, whilst Class 2, 3, and 4 (QL2,3, and 4) PIDs are designated DWDs. For the purposes of this instruction, all PIDs are considered deep divers due to the expectation of progression within the trade as PIDs may progress from SWD to DWD without additional medical re-review.
23. *SWDs* – Shallow Water Divers are CAF divers who rarely dive greater than 15m, never exceed 30m, and who are required to dive within no-D limits. This includes Ships Divers (SDs), Combat Divers, Special Operation Forces Divers (SOF), Search and Rescue (SAR).