



**GUIDANCE ON STANDARDS FOR
PRE-EMPLOYMENT MEDICAL EXAMINATIONS (PEMEs)**

Third Edition

March 2017

INTRODUCTION

The primary objective of the Club's PEME program is to protect shipowners from claims arising from medical conditions existing prior to employment and to provide crew with a stringently structured health check **before** going to sea.

We recommend that Members review the list of examinations carefully with their crewing departments and manning agents for each country from where seafarers are employed. There have been some changes to the examinations so Members need to check these amendments carefully.



In addition, Members should remain vigilant with their manning agents to ensure PEMEs are carried out objectively and without influence from the manning agent, its principle or the seafarer.

IMPORTANT: The American Club PEME form must be completed in its entirety as per the standards set forth in this Guidance. ALL required tests must be completed in full. Otherwise, the American Club's PEME requirements are not deemed as fulfilled and an American Club PEME form IS NOT to be issued to the seafarer.

Furthermore, these "Third Edition" standards set forth in the 2017 amended Guidance below is valid as of 1 March 2017 and associated AMERICAN CLUB PRE-EMPLOYMENT MEDICAL EXAMINATION FORM—2017. Also, the standards set forth in the "Second Edition" of the Guidance of November 2011 and associated PEME form will no longer be valid as of 1 March 2017.

The examinations are comprehensive from the perspective of the American Club PEME program. However, certain tests and procedures may be subject to local or national laws or regulations (e.g. HIV or psychological testing) and Members should ensure that they have a clear understanding of any limitations that this may create to them in the medical examination process.

We hope this guidance will help Members and American Club approved medical facilities in providing a consistent set of standards for controlling pre-existing condition illness claims.

If you have any questions or comments concerning the PEME Guidance, please contact Dr. William Moore, Senior Vice President, at +1 212 847 4542 or by e-mail at william.moore@american-club.com or Ms. Danielle Centeno, Assistant Vice President – Loss Prevention & Survey Compliance, at danielle.centeno@american-club.com for further assistance.



AMERICAN CLUB PRE-EMPLOYMENT MEDICAL EXAMINATION ACCEPTANCE GUIDELINES (Third Edition, 2017)

INTRODUCTION

The following parameters should be used as guidance for considering a seafarer, or other shipboard personnel, as being medically 'fit for duty'. There are variations in acceptability standards depending upon many different factors but these are the standards that the American Club deems a seafarer as being found as 'fit for duty'.

PLEASE NOTE THAT UNLESS ALL TESTS ARE COMPLETED AND THE CLUB APPROVED PEME FORM IS COMPLETED IN FULL, THE PEME IS NOT DEEMED AS COMPLETED. ALL APPROVED PHYSICIANS AND MEMBER REPRESENTATIVES ALIKE SHOULD ENSURE THAT THE FORMS ARE COMPLETED IN FULL.

1. Medical History Questionnaire

Ensure that the medical history questionnaire is completed and, in particular, the Declaration at the completion of filling out this form. The Declaration is important should there be a future claim that may have been related to a pre-existing condition that may have not been reported.

2. Physical Examination

A basic physical examination should include, at a minimum, measurements of height, weight and blood pressure. In addition, medical discretion should be used to consider if there are any abnormalities through a simple visual and physical examination of the seafarer.

a. Body Mass Index (BMI)

- Kilograms and meters (or centimeters) formula: weight (kg) / [height (m)]²
- Pounds and inches formula: weight (lb) / [height (in)]² x 703

With the metric system, the formula for BMI is weight in kilograms divided by height in meters squared. Since height is commonly measured in centimeters, divide height in centimeters by 100 to obtain height in meters.

Example: Weight = 68 kg, Height = 165 cm (1.65 m)
Calculation: $68 \div (1.65)^2 = 24.98$

Calculate BMI by dividing weight in pounds (lbs) by height in inches (in) squared and multiplying by a conversion factor of 703.

Example: Weight = 150 lbs, Height = 5'5" (65")
Calculation: $[150 \div (65)^2] \times 703 = 24.96$

The standard weight status categories associated with BMI ranges for adults are shown in the following table.

BMI Weight Status

Below 18.5	Underweight
18.5 – 24.9	Normal
25.0 – 29.9	Overweight
33.0 and Above	Obese

If the BMI is between 30 and 32.9 or above, the seafarer should be informed of their increased health risk. The seafarer is also required to sign a declaration as per page 3 of the *AMERICAN CLUB PRE-EMPLOYMENT MEDICAL EXAMINATION FORM—2017* related to a controlled

diet, lifestyle changes and weight loss as advised by the doctor while on board ship (see Section 25 below).

Seafarers with a BMI reading of 33 to 34.5 should be designated as temporarily 'unfit for duty' until the BMI index can be reduced by at least 3 points. A BMI reading of above 34.5 should be considered 'unfit for duty' until the BMI is reduced by at least 4 points.

b. Blood pressure

Blood pressure measured between 110/60 to the upper limit of 140/90.

3. Dental Examination

Visual test to identify teeth with problems (crooked, cavity, removed, etc.) and properly document those abnormalities—a dental chart with this information will be sufficient. If there are any teeth or oral conditions that could possibly worsen and need for a dentist's attention during the duration of the seafarer's contract at sea, these should be rectified before being considered 'fit for duty'.

4. Psychological

Preferably the 16 PF® Questionnaire, Millon Clinical Multiaxial Inventory - Fourth Edition (MCMI-IV) or OMNI Personality Inventory (OMNI) but not required if other tests are preferred. In some jurisdictions, a seafarer can also provide Military ticket or certificate that proves that they were not committed to a mental hospital or facility.

5. Visual Tests

Snellen—standard letter 'tests'). Deck watch keeping personnel should have, at a minimum, 20/20 vision.

6. Color Vision

Ishihara/Rapkin test –Seafarers with watchkeeping duties should be given to ensuring no color differentiation problems with red and green. For personnel with non-watchkeeping duties, consider on a case-by-case basis.

7. Audiometry

Standard hearing test and a 'Whisper Test'. The Whisper Test is performed 3-6 meters (10 to 20 feet) away from the applicant to determine if they can hear from a distance.

- For deck personnel, the minimum distance for the Whisper Test is 3 meters (10 feet).
- For engine room personnel, the minimum distance for the Whisper Test is 3.5 meters (11.5 feet).

Regarding the use of hearing aids, it is recommended that seafarers are evaluated on a case-by case basis depending upon the seafarer's job function and any flag State restrictions, if applicable. Fitness for sea-service without restrictions: Unaided hearing unimpaired (i.e. <30dB loss on audiometry or not indefinitely impaired category on speech recognition test).

8. Chest X-Ray

Annual chest x-ray (i.e. once every year) to check for any recognizable abnormalities. X-rays should be properly labeled as "Anterior/Posterior" or "Posterior/Anterior."

9. Electro Cardiogram (ECG or EKG)

Standard testing to determine if there are abnormalities.

10. Urinalysis

- If haematuria (blood in urine) is observed, then an ultrasound should be conducted and if it shows further small abnormalities, then crewman has option of an Intravenous Pyelogram (IVP).
- If it is found that there is protein and/or glucose in the urine, assess further because it can show a potential problem (e.g. hypertension, kidney problems or diabetes).

11. Fecalysis (required only for food service or food handling personnel)

Non-obligatory for standard ship crew but obligatory for food service personnel.

12. Complete Blood Count

Examinations are to be made for the following:

- Cholesterol
- Creatinine
- BUN
- BUA
- ESR
- Thrombocytes
- Anti HCV
- Check for anemia
- Platelet count
- White-blood cell count

13. Ultrasound examination

An ultrasound examination should be conducted general assessment of the abdomen and pelvis with particular attention paid to the detection of gall stones and kidney stones.

14. Hep B Antigen

If screening is positive, then further profile should be considered depending upon seafarer's exposure. If candidates are found to be HBsAg positive, further testing (HBe Ag and anti HBe Ab) should be considered. If HBs Ag is positive, a candidate with HBe Ag negative, HBe Ab positive, normal USG findings with normal LFT may be declared fit.

15. Hep C Antibodies

The anti HCV (test for detecting antibodies to Hepatitis C) is to be conducted. The cut off is either positive or negative.

16. VDRL

If VDRL test is found positive, a T. Pallidum Hemagglutination Assay can be considered as an additional test at the Member's discretion.

17. HIV Test

The American Club has required testing for Human Immunodeficiency Virus (HIV) for seafarers however there are countries where such testing is either illegal or must be conducted with the seafarer's consent. Consideration should be given to the relevant laws and regulations of each nation as to how and if the test is to be conducted.

18. Stress Test

Stress tests should be performed under two conditions if:

- indicated by abnormalities during resting ECG/EKG, stress test should be performed to determine if there are any other abnormalities; or
- if the seafarer is 40 years of age or older.

19. Diabetes

A seafarer can be considered 'fit for duty' with restrictions on a case-by-case basis for those taking oral medication only. This is to be done at the owners / doctor's discretion if proper oral medication is

provided for duration of time at sea or at least 3 months with a provision to replenish oral medication before prescription is finished. The Club should be notified of such cases in writing.

Seafarers taking non-oral medication **are not** acceptable and should be designated as 'unfit for duty'.

20. Laboratory Blood Work Up on an Overnight Fasting Status

Candidates are recommended to report to the clinic on an overnight fasting status of 12 to 14 hours after dinner. The candidates must be advised to avoid consumption of any beverages like, milk, tea, coffee, aerated drinks or juices. The following group of tests should be considered under the Fasting Blood Sugar examination:

- Glucose
- Cholesterol (to include a lipid profile [i.e. Total Cholesterol (HDL/LDL) Triglycerides])
- Creatinine
- Blood Urea Nitrogen (BUN)
- Uric Acid
- Erythrocyte sediment test
- Thrombocytes

21. Glycosylated Haemoglobin (HbA1c)

Clinics must use the HbA1c test to determine if diabetes is present.

22. Liver Function Testing

a. SGPT

SGPT level between 9-52 is considered normal.

b. SGOT

SGOT between 8-38 is considered normal.

If abnormal, then it is recommended that a full liver function test (LFT) be performed.

23. Alcohol/Drug Test

At a minimum, tests for the following should be considered:

- alcohol abuse (various tests above can possibly detect alcohol abuse such as SGOT and SGPT testing);
- THC/cannabis;
- cocaine;
- barbiturates; and
- amphetamines.

24. Spirometry

Consider the spirometry derived values: forced expiratory volume in 1 second (FEV1), forced vital capacity (FVC).

- Calculate the FEV1/FVC ratio (i.e. *Tiffeneau index*).
- Compare these with the individual's predicted values (based on age, sex, race and height).

Abnormal spirometry is divided into restrictive and obstructive ventilatory patterns:

- **Restrictive ventilatory pattern:** due to conditions where lung volume is reduced, e.g. fibrosing alveolitis, scoliosis. The FVC and FEV1 are reduced proportionately:
 - FVC reduced <80%.
 - FEV1 reduced.
 - FEV1/FVC normal.
- **Obstructive ventilatory pattern:** due to conditions in which airways are obstructed due to diffuse airways narrowing of any cause, e.g. asthma, COPD, extensive bronchiectasis, cystic fibrosis, lung tumors. The FVC and FEV1 are reduced disproportionately:
 - FVC normal or reduced.
 - FEV1 reduced<80%.
 - FEV1/FVC reduced<70%.

25. Declaration Requirements

The “**American Club Declaration Form—2017**” found on page 3 of the *AMERICAN CLUB PRE-EMPLOYMENT MEDICAL EXAMINATION FORM—2017* **must be** completed under the following conditions:

1. if the seafarer’s BMI has been found to be between, 30 and 32.9; and/or
2. if the seafarer has been prescribed medication by the PEME clinic; and/or
3. if the seafarer has any other pre-existing medical condition whereby he/she should require lifestyle and/or dietary changes.

A template copy of this form can be found on the third page of the *American Club Pre-Employment Medical Examination Form—2017* that can be found at <http://american-club.com/page/pemes>.

26. Submission of Quarterly Statistics

Each American Club approved clinic must submit quarterly statistics as per the “**American Club PEME Quarterly Statistics Reporting Form**” that can also be found at <http://american-club.com/page/pemes>. These statistics shall be reported for the following dates each year:

- 1 January to 31 March;
- 1 April to 30 June;
- 1 July to 30 September; and
- 1 October to 31 December.