



British Antarctic Survey Medical Unit  
Diving Diseases Research Centre  
Research Way  
Plymouth Science Park  
Plymouth. PL6 8BU  
Tel: 01752 438621  
Mobile: 07342713701  
Email: [basmu.admin@nhs.net](mailto:basmu.admin@nhs.net)

# BASMU 2

## MEDICAL ASPECTS OF DEPLOYMENTS TO POLAR REGIONS

### British Antarctic Survey Medical Unit (BASMU)



#### About This Guide

This short guide is for anyone heading to work with the British Antarctic Survey (BAS) or in partnership with them—including those from other organizations. It gives an overview of the key medical considerations when living and working in the Arctic or Antarctic. It's not meant to be a full medical manual, but a helpful starting point. If you have any health-related questions, the BAS Medical Unit (BASMU) team is always happy to help.

Please read this guide before filling out the medical forms. It'll help you understand how we approach medical assessments and why we ask for certain information. That way, we can fairly and accurately evaluate your fitness for deployment.

#### What's Inside

1. About BASMU
2. Medical Facilities During Deployment
3. Medical Requirements for Polar Work
4. Health Conditions That May Raise Concerns
5. The BASMU Medical Process
6. Confidentiality and Medical Records
7. Lifestyle and Health in Polar Environments



**British  
Antarctic Survey**

NATURAL ENVIRONMENT RESEARCH COUNCIL

March 2026

**NHS**  
University Hospitals  
Plymouth  
NHS Trust



British Antarctic Survey Medical Unit  
Diving Diseases Research Centre  
Research Way  
Plymouth Science Park  
Plymouth. PL6 8BU  
Tel: 01752 438621  
Mobile: 07342713701  
Email: [basmu.admin@nhs.net](mailto:basmu.admin@nhs.net)

## Quick Reminders Before You Go

- **Bring Enough Medication:** If you take medication regularly, make sure you pack enough for your entire deployment and delays. Contact BASMU if this becomes difficult.
- **Personal Health Kit:** Bring some high-SPF sun and lip cream (SPF 30 or higher), cold/flu relief meds, simple analgesia, over the counter products that you would use at home and motion sickness tablets for the journey.
- **Dental Check-Up:** Dental problems are one of the most common reasons people are evacuated early. Make sure your teeth are in good shape before you go.
- **Be Honest About Medical History:** Some conditions—like asthma, joint dislocations, or mental health issues—can be fine at the time of your exam but might flare up later. Please be open about anything that could impact your health during deployment, even if you're feeling fine now.

## About BASMU

- BASMU supports the health and wellbeing of everyone working with BAS, whilst deployed. We're based and employed by University Hospitals Plymouth NHS Trust and include specialists in emergency and remote medicine, experienced nurses, and logistical experts.

## Training

- Before you leave, you'll attend a BAS conference in Cambridge where you'll meet BASMU staff and take part in a first aid course tailored for polar work. Some team members also do advanced training on Dartmoor to assist with more serious medical issues in remote areas. Both courses are endorsed by the Royal College of Surgeons (Edinburgh).

## Medical Facilities whilst deployed

- We have a trained doctor stationed at Rothera, Halley, and South Georgia bases, and on our ship whilst they're in the South. As well as a military medic at Signy. These doctors and medics get additional training and are supported 24/7 by senior medics back in the UK.
- Medical services are extremely limited in the Polar Regions. Each base and ship have a basic supply of medicines and equipment—enough to handle common issues in a screened population. In the Arctic, medical facilities are even more sparse, with only minimal care available at certain locations like Ny-Ålesund and Longyearbyen.



British  
Antarctic Survey

NATURAL ENVIRONMENT RESEARCH COUNCIL

March 2026



University Hospitals  
Plymouth  
NHS Trust



British Antarctic Survey Medical Unit  
Diving Diseases Research Centre  
Research Way  
Plymouth Science Park  
Plymouth, PL6 8BU  
Tel: 01752 438621  
Mobile: 07342713701  
Email: [basmu.admin@nhs.net](mailto:basmu.admin@nhs.net)

## What's Required to Work in the Polar Regions?

- We aim to keep people safe while making sure the science gets done efficiently. That means identifying potential health risks early on and figuring out how to manage or reduce them.
- Most medical exams are passed without issue. Sometimes we'll ask for more information or recommend you see your GP or specialist for further investigation or treatment. Very occasionally, someone may not be cleared for deployment—but this decision is never made lightly.

## Why We're Thorough

Getting sick or injured in the polar regions can have big consequences:

- Only one doctor is available at each site.
- Evacuations can be delayed by weather or distance—especially in winter.
- Evacuations can be risky to patients and the rescuers.
- Everyone plays a key role, and one person's illness can affect the whole team.
- Medivacs can disrupt scientific work or cancel entire research programs.

Even if the summer weather seems mild (like a chilly day in Scotland), it's the isolation and remoteness that drive our medical standards—not the temperature.





British Antarctic Survey Medical Unit  
 Diving Diseases Research Centre  
 Research Way  
 Plymouth Science Park  
 Plymouth. PL6 8BU  
 Tel: 01752 438621  
 Mobile: 07342713701  
 Email: basmu.admin@nhs.net

## Health Conditions That Might Raise Concerns

Some conditions may make it difficult or risky to deploy, especially for overwinter stays. Others might be fine with monitoring or treatment. If you're unsure, speak to BASMU before applying.

<b>Conditions that preclude service</b> Decisions depend on many different factors but people with the conditions in this column will not be deployable on medical grounds.	<b>Conditions which <i>may</i> preclude service</b> These will be assessed on an individual basis and in relation to the capacity to undertake activity/work in the anticipated environment.
<b>Cardiac &amp; Circulation problems</b> Angina & heart attacks Leaky heart valves or rheumatic fever Uncontrolled high blood pressure Heart rhythm abnormalities Pacemaker / ICD fitted Heart failure Arterial disease (Arterial aneurysm or dilation) Peripheral vascular disease Anticoagulant medication High overall risk of cardiac event or stroke	Treated abnormal rhythms Severe varicose veins Previous frostbite Severe Reynaud's disease Previous leg thrombosis Previous clot on the lung Previous heart surgery Cardiac Syncope
<b>Respiratory (chest) problems</b> Recurrent pneumothorax Cold induced or severe asthma Chronic bronchitis or emphysema Active tuberculosis Sleep apnea/ use CPAP	Single episode of pneumothorax History of moderate asthma
<b>Gastrointestinal problems</b> Active stomach / duodenal ulcer Liver disease Pancreatitis Untreated hernia Inflammatory bowel disease	Previous exploratory abdominal surgery Severe piles History of stomach/duodenal ulcers
<b>Genito- urinary problems</b> Recurrent kidney stones Kidney failure	Single kidney stones (fully resolved) Recurrent kidney infections
<b>Neurological conditions</b> Epilepsy or fits Non-traumatic brain hemorrhage in past Unexplained episodes of loss of consciousness Degenerative neuromuscular conditions Significant neurological deficit secondary to trauma	Previous brain surgery Myalgic Encephalomyelitis POTS



British Antarctic Survey Medical Unit  
 Diving Diseases Research Centre  
 Research Way  
 Plymouth Science Park  
 Plymouth, PL6 8BU  
 Tel: 01752 438621  
 Mobile: 07342713701  
 Email: basmu.admin@nhs.net

<b>Conditions that preclude service</b> Decisions depend on many different factors but people with the conditions in this column will not be deployable on medical grounds.	<b>Conditions which <i>may</i> preclude service</b> These will be assessed on an individual basis and in relation to the capacity to undertake activity/work in the anticipated environment.
<b>Metabolic Conditions</b> Type 1 diabetes Cushing's disease Addison's disease Obesity BMI >35	Well-controlled mild type II diabetes (ENG 1 criteria) Other endocrine disorder Thyroid disease Obesity BMI 30-34
<b>Musculoskeletal and rheumatological conditions</b> Rheumatoid arthritis Ankylosing spondylitis	Systemic lupus erythematosus Slipped disc Recurrent back pain Severe knee problems Unstable joint Frequent Gout Lower Limb Amputation Recurrent dislocations
<b>Cancer and hematological disorders</b> Most cancers Clotting or bleeding disorders Anticoagulant medication Active bone marrow disease	Treated cancer with low risk of recurrence Treated leukemia Treated Hodgkin's disease
<b>Gynecological conditions</b> Current pregnancy	Pelvic inflammatory disease Ovarian disease
<b>Dermatological conditions</b> Blistering skin diseases Severe psoriasis	
<b>Mental Health Problems</b> Schizophrenia Manic depression (Bipolar Affective Disorder) Personality disorder Current Drug or alcohol abuse	Current psychiatric illness Depression Self-harm Previous drug / alcohol problem Previous severe mental illness Eating disorders
<b>Other conditions</b> Immunosuppressant medication Immunomodulatory medication Immunological disorders Immune suppression Anaphylaxis to non-drugs Angioedema	Prescribed EpiPen Allergic reaction to food Prostatic hypertrophy (untreated)



British Antarctic Survey Medical Unit  
Diving Diseases Research Centre  
Research Way  
Plymouth Science Park  
Plymouth. PL6 8BU  
Tel: 01752 438621  
Mobile: 07342713701  
Email: [basmu.admin@nhs.net](mailto:basmu.admin@nhs.net)

### Examples of more serious issues:

- Heart problems, uncontrolled high blood pressure, serious lung conditions
- Severe asthma, epilepsy, recent major surgery, or ongoing mental health conditions
- Chronic diseases that need close monitoring or emergency intervention
- Any condition that could flare up unpredictably or impair mobility

### Examples of manageable conditions:

- Mild asthma
- Past surgeries with full recovery
- Some treated cancers with low risk of recurrence

Every case is looked at individually, depending on the location, role, and length of your deployment.

### The BASMU Medical

Your medical evaluation has two parts:

1. **BASMU 3** – a detailed questionnaire you fill out
2. **BASMU 4** – a form completed by the examining doctor (either BASMU or a local GP / private medical company)

Your health is assessed based on your specific role and location—short base deployments have different requirements than deep field or overwintering posts. Our goal is to manage risk, not to stop people from deploying. There is dental screening for all deployed staff. Personnel selected for overwintering must undergo an additional, more comprehensive dental assessment to mitigate the risk of dental emergencies during isolation.

### TB Screening

Tuberculosis is a serious disease that spreads easily in closed environments. Please be honest about any past exposure or symptoms—this helps us protect everyone.

### Confidentiality

Your medical information is confidential. Sometimes, though, we need to involve a small number of senior staff for safety or evacuation planning. This is strictly on a need-to-know basis and follows a clear confidentiality policy. You can access your medical records, and we'll always ask for consent when contacting your GP.



British  
Antarctic Survey

NATURAL ENVIRONMENT RESEARCH COUNCIL

March 2026

  
University Hospitals  
Plymouth  
NHS Trust



British Antarctic Survey Medical Unit  
 Diving Diseases Research Centre  
 Research Way  
 Plymouth Science Park  
 Plymouth. PL6 8BU  
 Tel: 01752 438621  
 Mobile: 07342713701  
 Email: basmu.admin@nhs.net

## Immunisations

Completed on a separate form and stored on your personal file. BAS mandate at least one covid vaccine in your lifetime. Where possible a tetanus booster is advised every 10 years, and immunisations where living in a close community. It is your responsibility to inform BASMU if you have any update to your immunisation status.

Immunisation (recommended)
Diphtheria, Tetanus, Polio within the last 10 years
MMR (measles, mumps, rubella)
Flu vaccine (Quadrivalent influenza seasonal flu vaccination advised)
Meningitis ACWY (advised working in small communities)
COVID vaccination (at least on in lifetime document latest)
Hepatitis A Seafarers / workers in contact with sewage
Hepatitis B Seafarers
Yellow fever Seafarers
Typhoid Seafarers
Hepatitis A and Typhoid for food handlers



British Antarctic Survey Medical Unit  
Diving Diseases Research Centre  
Research Way  
Plymouth Science Park  
Plymouth, PL6 8BU  
Tel: 01752 438621  
Mobile: 07342713701  
Email: [basmu.admin@nhs.net](mailto:basmu.admin@nhs.net)

## Life on Deployment: Staying Healthy

### Consideration for flight

Take well published and practical steps to avoid dehydration and DVT during long haul flights.

### Fitness

Being fit matters—not just for your role, but for daily life in a cold, active environment. Even office-based roles require physical activity around base or ship.

### Dental

Reduce sugar. Sugar produces acid and demineralises teeth for 20 mins after food but then saliva helps to buffer the acid and reduce danger. Frequency of sugar intake is critical as the more frequent sugar attacks the more damage.

Increase fluoride. Fluoride is a naturally occurring mineral that helps to make a tooth more resistant to decay. Different toothpastes have different concentrations. Use the highest at night-time

### Food

Meals are generous and generally well balanced. However, it's up to you to make good choices. Supplements are provided. A BMI over 35 will prevent deployment.

### Alcohol

Drinking is allowed but overdoing it is risky—both for your health and the group. You must always be sober enough to respond in an emergency. Excess drinking can cause medical issues and behaviour problems that put others at risk.

### Smoking

Smoking is strongly discouraged due to health risks and fire hazards in dry, flammable environments like Polar bases and ships. There are very few places where smoking is allowed.

### Relationships & Mental Health

Living and working in close quarters during long, isolated winters can be tough. Tensions can rise. Try to keep a level head and talk things through. Support is available from station leaders or the BASMU doctor.

### Pregnancy

People who are pregnant can't be deployed due to the risks involved, both medically and emotionally. Please take precautions to avoid pregnancy before and during deployment.

**Finally...** In a small, close-knit community like a Polar base or ship, your actions and attitude really matter. Take care of yourself—and each other. We're here to help with any questions or concerns before, during, or after your deployment.

**We hope this guide has been helpful. If you have any queries, suggestions or comments feel free to contact + 44 (0) 1752 438621 or +44 7342 713701 and talk to someone in BASMU.**