

## Introduction

Have you experienced fatigue, occasional headaches, or digestive issues? It is not bad enough to go to a hospital, and you have been managing on your own, but you feel jealous of healthy friends, worry that it might never get better, or feel disappointed in yourself that you would perform better if you were healthy.

Even minor health problems could make each day challenging. We have summarized information on physical and mental issues for those of you who are concerned with minor health issues.

This is for those who are struggling now and for everyone else. Please take a moment to read this pamphlet.



## Welcome everyone

### [Contact us at Center for Health Sciences and Counseling]

○Mon. – Fri. 9:00-17:00  
○<http://www.chc.kyusyu-u.ac.jp/>

**Center for Health Sciences and Counseling**  
(2<sup>nd</sup> floor, Big Sand) 092-802-5881

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Center Zone, Ito Campus**  
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**Center for Health Sciences and Counseling,  
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Ito West Zone (3<sup>rd</sup> floor, West Zone 3) 092-802-3297

**Center for Health Sciences and Counseling,  
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**Center for Health Sciences and Counseling,  
Chikushi Campus**  
(old health science center) 092-583-7685

**Center for Health Sciences and Counseling,  
Ohashi Campus**  
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## Selfcare series for students

### [Student life]

1. Student counseling Q & A
2. How to make small talk
3. How to take tests and make presentations
4. How to not procrastinate
5. How to get over failures
6. How to deal with parents during adolescent year
7. How to control anger
8. Transfer students
9. How to manage your schedule
10. Friendship at the university
11. Quit the university?
12. For students that plan to study abroad

### [Mental and physical health]

1. Sleep disorder
2. Headache
3. Anemia
4. Intestinal issues
5. Adjustment disorder
6. Anxiety disorder and panic disorder
7. Cause of depression
8. Symptoms of depression
9. Autonomic nerves and autogenic training
10. Relaxation
11. Health issues associated with smoking
12. Infectious diseases

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## Mental and physical health 3

# Anemia



This pamphlet summarizes the information necessary for you to manage the mental and physical problems you may encounter. Please refer to this pamphlet as needed.

**Kyushu University**

Center for Health Sciences and Counseling

# Anemia

## 1. What is anemia?

### ① Anemia and its symptoms

Anemia is “a state of thin blood.” Medically, it means there is insufficient hemoglobin (protein in red blood cells, which carry oxygen) in blood. A decrease in hemoglobin lowers the ability of blood to transport oxygen, leading to various symptoms due to hypoxia in organs and tissues. “Pallor,” “systemic fatigue,” “palpitation,” “shortness of breaths,” “unsteadiness on feet,” and “dizziness upon standing up” are common symptoms.

### ② The most common anemia: iron-deficiency anemia

“Anemia” is not one disease, but there are different types based on the cause of anemia. The most common anemia is iron-deficiency anemia, caused by insufficient iron in the body. Anemia experienced by many young women is iron-deficiency anemia. The reason iron-deficiency anemia is more common in women is because they tend to bleed more due to menstruation or gynecological diseases (fibroids, endometriosis, etc.), leading to insufficient iron in the body. Iron-deficiency anemia in men tends to occur due to bleeding from stomach, intestine, or digestive tract. It has more likelihood of severe diseases, and thus, requires more attention. Of course, women could develop anemia other than iron-deficiency anemia, and should be tested if there are any symptoms that cause a concern.

### ③ Diagnosing anemia

To diagnose anemia, a blood test must be performed. A blood test can determine if it is anemia, and if so, its degree (mild, moderate, or severe) and type (iron-deficiency or other types). It is difficult to diagnose anemia based on subjective symptoms. In a health checkup, the doctor asks you to pull the lower eyelid down to check for palpebral conjunctiva. If the conjunctiva is pale blue, anemia is quite advanced. In a mild anemia, it would not be possible to tell in this manner. Iron-deficiency anemia

progresses slowly; thus, the body may become accustomed to low hemoglobin and you may not feel fatigue or shortness of breath. Most medical facilities can perform blood tests for anemia. If you experience any concerning symptoms, please go get tested.

## 2. Cerebral anemia

### ① Orthostatic hypotension and neutrally mediated syncope

“Cerebral anemia” may be confused with anemia. Regardless of the level of hemoglobin in the blood, the blood pressure becomes unbalanced temporarily, and drops, causing cerebral ischemia (insufficient blood flow to the brain). This in turn causes unsteadiness, dizziness upon standing, black spots, dizziness, and nausea. In most cases, symptoms improve quickly. This condition is called “orthostatic hypotension.” In severe cases, a person could faint, which is called “neutrally mediated syncope” (fainting means temporarily losing consciousness due to temporary decrease in blood flow to the brain). Many people who visit the center complaining of anemia are actually suffering from orthostatic hypotension or neutrally mediated syncope.

### ② Symptoms and triggers

The symptoms of orthostatic hypotension and neutrally mediated syncope are a sudden onset unlike anemia. They usually have clear triggers as well, including physical or mental stress such as standing or sitting for a long time, dehydration, lack of sleep, fatigue, pain stimulation, and fear; environmental causes such as crowd or enclosed space; urination (especially after drinking); and defecation. A common situation is someone becoming ill or fainting from standing for a long time in a crowded train. Normally, the autonomic nerve (sympathetic nerve and parasympathetic nerve systems) balances and maintains the blood pressure and pulse constant, but when these balances are not maintained, the blood pressure and heart rate could drop, leading to decreased blood flow in the brain, and then fainting. As a precursor immediately before the

onset, one may experience heaviness in the head, headache, double vision, nausea, vomiting, feeling of being unwell, palpitation, sweating, stomach ache, and black spots. Even when one faints, it usually only lasts a few minutes (mostly less than one minute). Many healthy and young students without serious medical history, who visit the center because they felt unwell or fainted during a class or in a bathroom, are suffering from orthostatic hypotension or neutrally mediated syncope. The symptoms improve quickly if one lies down and rests. It is common during the morning (during commute or first/second periods) in the first term (spring to summer) when students are new to the school, have not eaten breakfast, and/or have had little sleep. The number of students who seem to be suffering from orthostatic hypotension or neutrally mediated syncope decreases in the afternoon and in the latter term.

### ③ Importance of prevention and treatment as needed

Prevention is important for orthostatic hypotension and neutrally mediated syncope. It is extremely important to understand what causes symptoms, and avoid likely triggers (standing or sitting for a long time, dehydration, lack of sleep, stress, etc.). In many cases, lifestyle guidance is sufficient, and these symptoms usually do not interfere with daily lives. However, there are some cases where symptoms occur regularly, or where the symptoms are so severe that they interfere with daily lives. In such cases, tests at medical facilities and treatment with drugs may become necessary. If you are experiencing any concerning symptom, please feel free to visit the center.

Noriko YAMAMOTO, March 2016.03

