

# Metabolic Syndrome and Specific Health Checkup

If excess fat is accumulated in the viscera, the status of adipokine secreted from the visceral fat changes, resulting in hypertension, diabetes mellitus, and dyslipidemia. Such a condition is called **Metabolic syndrome**. Metabolic syndrome is known to advance arteriosclerosis if untreated, readily inducing myocardial infarction or cerebral infarction. Therefore, if you are diagnosed as having metabolic syndrome or potential metabolic syndrome, make efforts to improve the condition.

Since the 2008 academic year, **Specific Health Checkup**, also known as the Metabo Checkup, has been implemented along with the conventional medical checkup to detect metabolic syndrome early and prevent its progress or resolve the situation to recover the normal condition.

Treatment of metabolic syndrome involves reduction of visceral fat. This is often achieved effectively by making improvements in lifestyle habits. Revise your daily lifestyle habits starting from Metabo Checkup.

## Diagnostic criteria for metabolic syndrome

### \* Criteria for Japanese in Japan

Metabolic syndrome is diagnosed if two of the three items listed below are met in addition to abdominal circumference  $\geq 85$  cm for males and  $\geq 90$  cm for females.

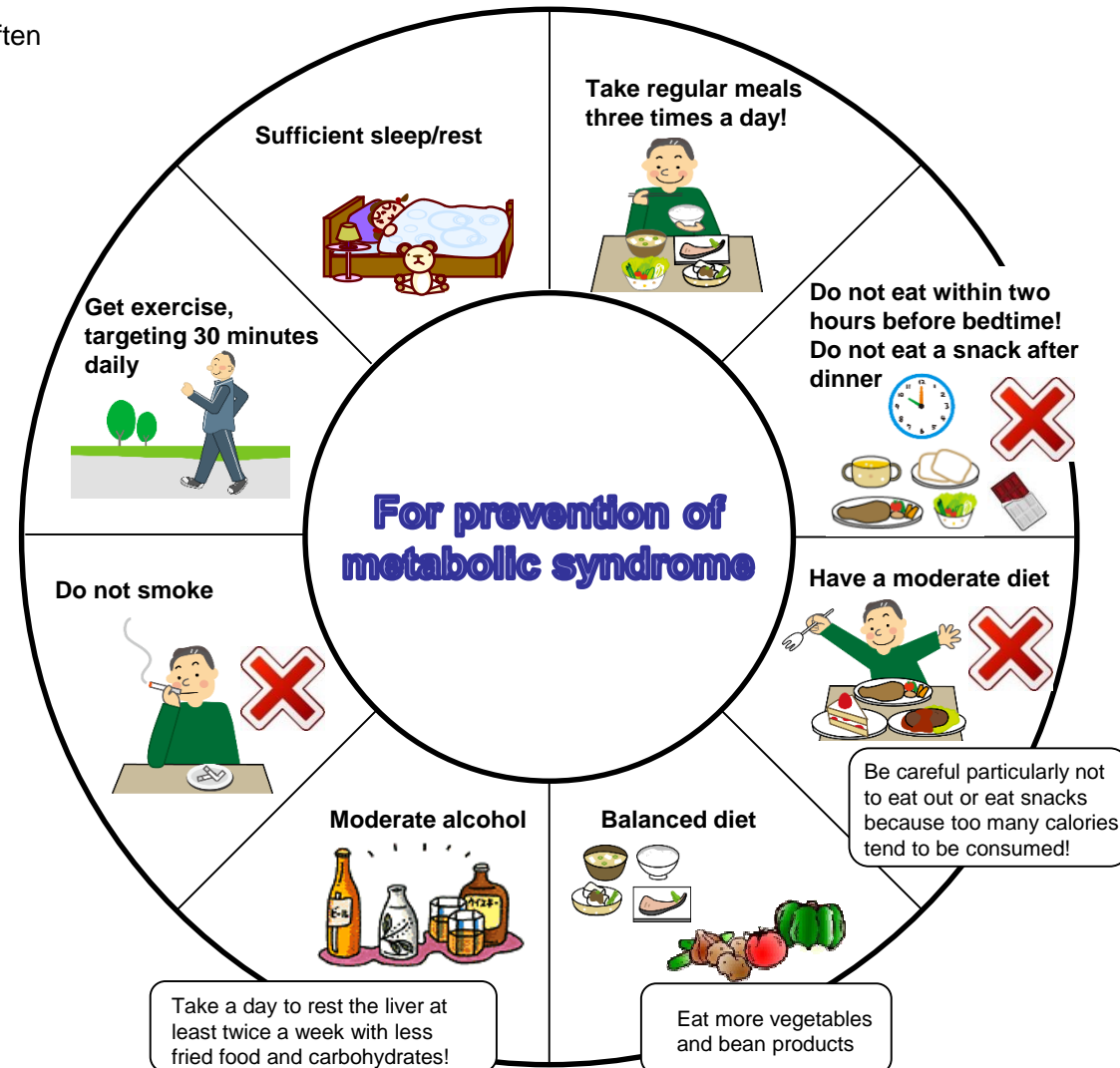
(1) Fasting plasma glucose  $\geq 110$  mg/dL  
(HbA1c  $\geq 6.0\%$  if sampled after meal)

(2) Systolic BP  $\geq 130$  mmHg or diastolic BP  $\geq 85$  mmHg

(3) Fasting triglyceride (TG)  $\geq 150$  mg/dL or HDL-C  $< 40$  mg/dL

\* An item under treatment is considered to be met even in the normal range.

\* Indeterminable: If any of these items have not been measured, the result will be indeterminable.



**Specific health checkup** defines the following diagnostic criteria with the aim of earlier detection of metabolic syndrome.

- 1) In an individual with the abdominal circumference  $\geq 85$  cm for males and  $\geq 90$  cm for females, active support is applicable if two of the following four items are met, and motivation support is applicable if one item is met.
- 2) With BMI  $\geq 25$  kg/m<sup>2</sup>, active support is applicable if three or more of the following items are met and motivation support is applicable if one or two are met.

**(1) Fasting plasma glucose  $\geq 100$  mg/dL or HbA1c  $\geq 5.6\%$**

**(2) Blood pressure  $\geq 130/85$  mmHg**

**(3) Fasting triglyceride (TG)  $\geq 150$  mg/dL or HDL-C  $< 40$  mg/dL**

**(4) Present smoking**



In active support and motivated support, an interview is conducted with a doctor or public health nurse aiming at improvement of lifestyle habits. Please take advantage of this opportunity.

## **Funduscopy (Eyeground) Examination as an “item for detailed medical examination” in the Specific Health Checkup**

From the 2018 academic year, it is recommended for patients who meet either of the following two criteria to undertake a funduscopy examination as an “item for detailed medical examination”:

**(1) Fasting plasma glucose  $\geq 126$  mg/dL, or HbA1c  $\geq 6.5\%$ , or postprandial plasma glucose  $\geq 126$  mg/dL.**

**(2) Systolic blood pressure  $\geq 140$  mmHg, or diastolic blood pressure  $\geq 90$  mmHg.**



There is a risk of bleeding from the capillaries of the fundus of the eye (eyeground) or bleeding due to vascular proliferation (increased development of blood vessels) in cases of continual high blood glucose levels or repetitive cycles of high and low blood glucose levels. If such bleeding can be identified at an early stage, it may be treatable through laser surgery. It is also possible to determine arteriosclerosis (narrowing arteries due to a buildup of plaque), and importantly whether or not bleeding exists in the eyeground in cases of hypertension (high blood pressure).

Patients who regularly receive funduscopy examinations due to diabetes mellitus, etc., should continue doing so. Those who do not are strongly encouraged to visit their local ophthalmologist (eye doctor).