

# DIAGNOSIS AND TREATMENT

As a regional core hospital, the university hospital has striven to provide high quality medicine and to train specialized medical personnel. In addition to raising the quality of patient services, our hospital has renewed its Quality Health Care Evaluation (Ver. 5) conducted by the Japan Council for Quality Health Care.

## Providing Patients with Advanced Medicine

### Providing advanced medical technology

Advanced medical technology refers to the technology that the Ministry of Health, Labor and Welfares has approved as most advanced. This approval is granted only for the medical facilities that possess well-trained staff and up-to-date facilities and equipment. The following five technologies are available at our hospital (as of Nov. 1, 2009).

#### 1 Non-invasive diagnosis of diabetic foot syndrome using 31-phosphorous magnetic resonance spectroscopy and chemical shift imaging

Foot diseases are diagnosed early and correctly by this non-invasive method.



#### 2 Immunotherapy for cancer patients using dendritic cells and tumor antigen peptides

Dendritic cells that induce killer lymphocytes against cancer cells are cultured and then injected into the patient. At our hospital, this treatment is applied for patients with lung cancer and breast cancer.



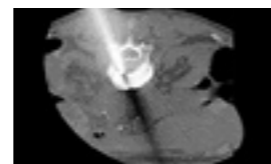
#### 3 Anti-cancer drug sensitivity testing using CD-DST

A drug sensitivity test, using patient's tumor cells, enables selection of the drugs optimal for the treatment of individual tumors in advance of drug administration. At our hospital, this treatment is applied to gastrointestinal cancer, breast cancer, metastatic liver cancer, metastatic lung cancer and carcinomatous pleuroperitonitis.



#### 4 Percutaneous vertebroplasty (PVP) for treating bone fragility caused by osteoporosis and bone tumors

In this treatment, bone cement is injected into fragile bones to enhance the strength of bones.



#### 5 Treatment of bone fractures using ultrasound

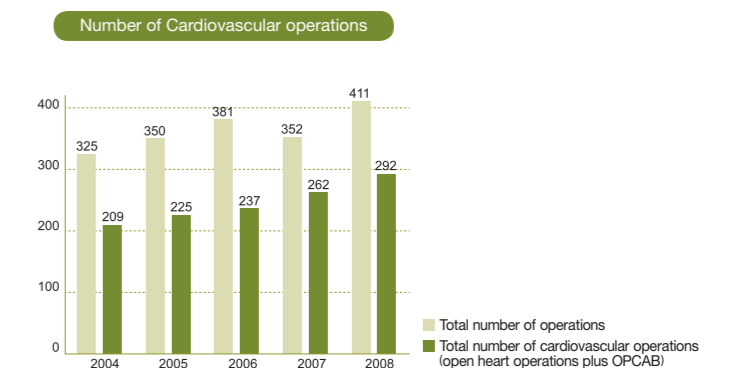
This is a type of treatment for arm and leg fractures that require an operation. After the operation, the area of the fracture is exposed to low-intensity ultrasound, which accelerates recovery. The time required for bone fusion is reduced by around 40%.



## Providing High Quality Surgery

### Promoting advanced cardiovascular (off pump coronary artery bypass) operations

In our institution almost all patients undergo coronary artery bypass grafting without cardiopulmonary pump. This operation requires advanced techniques, but is less invasive than conventional operation. Even elderly patients and patients for whom surgery could not otherwise be recommended because of the burden to the body can walk and eat the day after the operation, and are able to be discharged from the hospital within 1-2 weeks. In addition, the number of operations conducted each year has increased.



## Renewed Quality Health Care Evaluation (ver.5.0) Certification

Having received its first approval in February 2004, our hospital renewed its Quality Health Care Evaluation Certification, which is provided by the Japan Council for Quality Health Care, on May 1, 2009. Our hospital has continued to strive to further strengthen the quality of its medical treatments, which have been evaluated as high quality.

"The Japan Council for Quality Health Care" evaluates the qualities of medical facilities from a neutral position in order to expand and improve the function of Japanese medical facilities.



▲ Renewed Certification

### Introduction of the latest 3 Tesla (T)MRI equipment

To promote advanced medicine, the university hospital has set up 3-T and 1.5-T MRI equipment. By dramatically reducing the time for scans, it has become possible not only to demonstrate its usefulness in diagnosing acute strokes but also to capture minor changes in a brain. In addition, the hospital has increased its ability to diagnose aneurysms. It is also now possible to track distribution of nerve fibers and metabolic changes in the brain, and imaging diagnosis of the brain and spinal cord has been tremendously improved. It is expected that diagnosis of lesions in joints, breasts, and the pelvic cavity will improve using high definition images from the 3-T MRI.

### Designated as the Shiga Core Hospital for Advanced Cancer Treatment

In November 2008, the university hospital was designated as the Shiga Core Hospital for cancer treatment, and the comprehensive cancer treatment program was launched. In order to improve the cancer treatment in Shiga prefecture, our university plays a role in training cancer specialists, and sends those specialists to affiliated hospitals. In order to standardize cancer treatment, our university takes part in the Shiga Cancer Treatment Coordination Council in Shiga prefecture.