Other practical uses for this device allow ambulation after strokes, back, hip, or lower extremity surgery including hip and knee replacement when only limited weight bearing is allowed. Of course, early ambulation after leg amputation and later with prostheses will be greatly facilitated. It is also of great value in intensive rehabilitation situations such as spinal cord-injured patients and severe bilateral lower leg injuries.

These applications have the following benefits:

For Patients:
1) Protection from thromboembolic episodes.
2) Improved muscle function and ventilation.
3) A feeling of security and comfort when up plus actual safety from falls.
4) Resultant improved physical, mental and psycho-social well-being.

For Staff:
1) Improved efficiency in walking or transporting patients.
2) Safety from often serious back injury and patient falls.

For Administration:
1) Improved rehabilitative technique allowing patients to recover with shorter length of hospital stay.
2) Reduce staff and patient injuries commonly discussed in patient care, safety, quality assurance and risk-management committee meetings.
3) Increase revenues when "doctors' orders" to walk patients may be fulfilled in spite of periodic personnel shortages.

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Coronary Bypass in Dextrocardia

To the Editor:

To our knowledge, there is only one report on coronary bypass surgery on a patient with dextrocardia.1 We recently operated upon a 76-year-old man with dextrocardia and situs inversus who had postinfarction angina pectoris.

Preoperative stress electrocardiogram with thallium imaging showed a fixed perfusion defect in the inferior wall and a reversible perfusion defect in the lateral wall. Coronary angiography revealed significant triple vessel disease. His history was otherwise unremarkable except for the known diagnosis of dextrocardia and situs inversus.

Triple coronary bypass grafting was carried out on April 20, 1981. The operative technique was entirely similar to a routine coronary bypass operation except for the mirror image reversal of venous cannulation and the unusual placement of the saphenous vein grafts (Fig 1). His postoperative recovery was entirely uneventful.

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and
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REFERENCE
1 Irvin BG, Ballenger JF. Coronary artery bypass in a patient with situs inversus. Chest 1982; 31:380-81

To the Editor:

Drs. Moreno-Cabral and Daily report another patient with dextrocardia who underwent successful coronary bypass surgery. As in our initial report, the procedure was described as routine except for the mirror image reversal of the anatomy.

Since the publication of our article, I have become aware of four additional similar cases which were reported while our manuscript was in press. Grey and Cooley1 reported three cases from the Texas Heart Institute, and Aris and коллеги1 reported a similar case from Barcelona, Spain.

Patients with situs inversus and mirror image dextrocardia are felt to have normal longevity, and presumably have an incidence of atherosclerotic coronary artery disease similar to the general population. These case reports indicate that, except for the anatomic reversal, the clinical presentation, diagnostic procedures and surgical approach are the same as for other patients with coronary disease.

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Clinically-derived Mycobacterial Classifications

To the Editor:

"Form follows function" was one of the maxims of the Bauhaus school of architecture early in this century. Bailey, in his article, "Treatment of Atypical Mycobacterial Disease." (Chest, 1983; 84:625-29) suggests a reclassification for the atypical mycobacteria in which the form of the classification follows the functional aspect of these organisms. He appropriately notes that among the many different species of mycobacteria recovered in diagnostic laboratories across the country there is a logical grouping according to whether the organisms are likely to be producing disease and, if so, what may be the expected response to therapy. While his article did not prominently note titles for the groupings, the following designations were suggested: group O (non-pathogenic), group 1 (easily
treatable with standard mycobacterial chemotherapy), and groups 2a and 2b (difficult to treat with usual mycobacterial therapy).

Functionally, this seems to be a practical way for clinicians who do not frequently encounter these many microbes to keep track of the clinical importance of isolates. However, I am concerned about the predictable overlap of the old classification system of Runyon with this new system. Specifically, I am worried about the confusion that predictably will develop between the older designations of groups I-IV (Runyon) with the new groups 0-3 (Bailey). Therefore, to reduce the potential for confusion in communication, I would suggest that the newer system advocated by Bailey be grouped only by the functional, descriptive designations: Mycobacterium: nonpathogenic, Mycobacterium: pathogenic (Mycobacterium: nonpathogenic group and Mycobacterium: pathogenic group); rifampin: effective, rifampin: ineffective. Further, I would suggest that clinicians be advised of the potential for confusion in communication that could arise when discussing this classification system.

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To the Editor:

Dr. Iseman’s comments regarding form following function are perceptive and his suggestion that an alternate classification system be grouped by functional descriptive designations only is consistent with our intent. Our classification system was in no way intended to replace the Runyon classification system which serves an entirely different and very important purpose. By limiting this new system, we hope confusion with the older system can be avoided. However, recognizing the propensity for individuals to abbreviate any system, numbering or lettering each category may still be necessary. Using letters such as “A,” “B,” and “C” would miss the obvious advantage of having the nonpathogenic mycobacteria included under such a descriptive category as category “Q” (see the article by Runyon). Using abbreviations such as “O” for nonpathogenic mycobacteria, “E” for easy to treat, and “H” for hard to treat would be quite descriptive, but in a sense does not effectively communicate everything necessary. For instance, it is really not correct to say that treatment for 18 months with INH, rifampin and ethambutol is in fact easy, particularly when one is dealing with a patient who is not very enthusiastic about long-term compliance. As we learn more about newer drugs, some of the organisms presently categorized as difficult to treat could very well become quite easy to treat with nonstandard mycobacterial regimens. Certainly information gleaned from patients with the acquired immunodeficiency syndrome and disseminated M. avium intracellulare infection would indicate that some newer drugs may be effective. Examples are the rifampicin analogue ansamycins, the antituberculosis drug clofazimine, the alpha lactam antibiotic thienamycin, the amnoglycosides amikacin, and perhaps even beta lactam antibiotics such as cephalosporins and ampicillin. While information in this area remains anecdotal, it is sufficient to give us hope for finding an effective regimen in the future. No system is perfect, and abbreviations become even less perfect, but two strictly functional classifications using the following abbreviations might be considered:

O—Mycobacterium nonpathogenic
S—Mycobacterium responding to standard antituberculosis therapy
N—Mycobacterium requiring nonstandard antituberculosis therapy

or

O—Mycobacterium nonpathogenic
P—Mycobacterium pathogenic

a—Antituberculosis therapy effective
b—Bacterial therapy or other approach required

Perhaps other readers would have additional suggestions.

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Reduced Functional Residual Capacity and Severe Head Injury

To the Editor:

Dr. Isenberg and Boswell reported that many patients with severe head injury had high levels of venous admixture (Qva/Qt) associated with a reduction in functional residual capacity (FRC). Although they found similar values of FRC and Qva/Qt among all subgroups of patients, we believe it is difficult to relate the reduction of FRC observed in their study with head trauma, since there were patients with abnormalities of the chest roentgenograms and other associated lesions as major trauma that could explain the reduction of lung volume. It would be very interesting to know the results of the group of patients with normal findings on chest roentgenograms and isolated head trauma in order to observe if the reduction of FRC persists.

The magnitude of FRC reduction is not clear, because the authors stated that the mean FRC was 68 percent of the value predicted for the upright position while they used reference values for women in the sitting position and for men in the semirecumbent position. In fact, the percentage of the predicted value was not correct for the three women, and to our knowledge, there are no reference values for women in the semirecumbent position.

Our findings in 11 patients with isolated head trauma and spontaneous ventilation did not support the idea that there is a severe reduction of FRC in head trauma patients. The patients had a mean age of 27 years, ranging from 17 to 45 years. Seven patients (64 percent) required craniotomy and our data were obtained 48 to 72 hours after admission. Their mean Glasgow coma score was 6. All of the patients had normal findings on chest roentgenograms. The mean FRC in the supine position was 1.84 ± 0.40 L (SD) which represented 81 percent of the predicted value. The arterial P02 breathing room air was 75 ± 16 mm Hg. Only four patients had an arterial P02 lower than 70 mm Hg.

The occasional arterial hypoxemia observed in patients with isolated head trauma and normal chest roentgenographic findings can be attributed predominantly to a mismatch of ventilation and perfusion. The reduction of FRC probably plays a minor role. At the moment no direct evidence of abnormal closure of small airways has been demonstrated.

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