

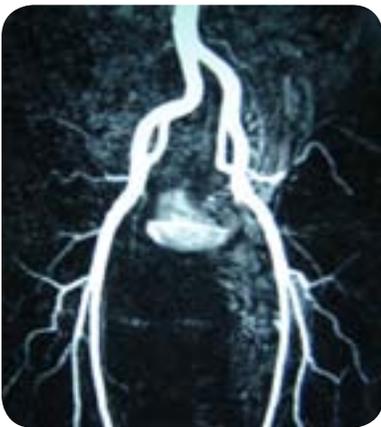


## Prediabetic Peripheral Arterial Disease (Metabolic Syndrome)

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Volume - 7  
Case Report - 10

MRA Scan



### Abstract

The purpose of this report is to demonstrate that the arterial disease caused by diabetes is also occurring during the prediabetic phase. It is during this prodrome of diabetes that atherosclerotic disease is actually accelerating, causing coronary and peripheral arterial disease (PAD). This prediabetic phase is due to insulin resistance which is the underlying cause of the metabolic syndrome. Over 50 million Americans have this disease and are being inadequately treated, allowing their vascular disease to go unchecked.

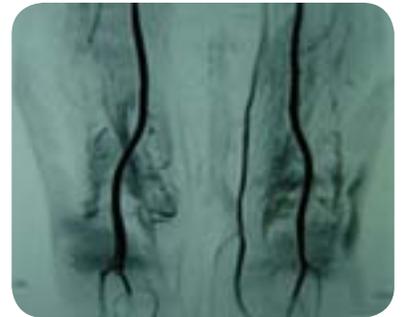
### Diabetes and PAD

Stenosis or obstruction of the small vessels below the knee is a characteristic finding in the diabetic patient, as demonstrated by the MRA to the left.

### Prediabetes and PAD

Similar disease is seen in the prediabetic patient, as demonstrated by the MRA to the right, especially note the right foot.

MRA Scan



As you can see from the above MRA's, the vascular damage from diabetes and prediabetes is indistinguishable.

This is further demonstrated by the following studies, one being diabetic and the other prediabetic.

## Pre-diabetic Study



## Diabetic Study



## Metabolic Syndrome

Patients who have prediabetes or metabolic syndrome are characterized by abdominal obesity, hypertension, elevated triglycerides and LDL's, low HDL's, insulin resistance, glucose intolerance and a proinflammatory and prothrombotic state.

These patients tend to have excessive body fat and are physically inactive. They are at greater risk of having coronary artery disease and other plaque related diseases such as stroke and peripheral arterial disease.

## Conclusion

Obviously we treat the diabetic patient, but the prediabetic patient rarely receives any treatment until their blood sugars are high enough to be labeled diabetic. It is these patients with insulin resistance (metabolic syndrome) who are developing accelerated arteriosclerosis. They are suffering myocardial infarctions, strokes and amputations long before they are labeled diabetic.

These prediabetic patients need to be identified and treated more aggressively during this early prediabetic stage to prevent or at least slow the progression of their atherosclerotic disease. If we wait until their blood sugars increase to meet the criteria needed to be labeled diabetic, it usually is too late.

## About Precision Health Care

Precision Health Care is a comprehensive wound healing and hyperbaric medicine service organization dedicated to the development of state-of-the-art hyperbaric and wound healing centers through partnership and collaboration with our affiliate hospitals.

Community-based and patient-focused, we are driven by this mission philosophy: To provide select hospitals safe, comprehensive, compassionate wound healing and hyperbaric services for patients in need.

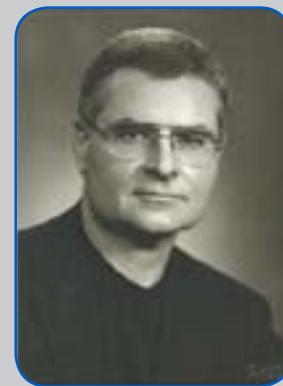
## Questions or Comments?

### Contact us:

at Precision Health Care:

**1-888-HyperHeal (497-3743)**

## About the Author



Charles D. Rice, M.D., F.A.C.S., U.H.M. is the Medical Director of the Center for Wound Healing & Hyperbaric Medicine at Mount St. Mary's Hospital in Lewiston, N.Y., with Board Certifications in Surgery and Hyperbaric Medicine. He has over 20 years experience in General and Vascular Surgery. Since 2003, his practice has been devoted solely to Wound Healing and Hyperbaric Medicine.

## THE PRIMARY CARE PHYSICIAN SHOULD REFER THE PATIENT FOR ADVANCED WOUND CARE IN A WOUND HEALING CENTER IF THE PATIENT:

- Has a wound that persists for more than 30 days after treatment
- Has a wound and Reynaud's phenomenon
- Has purpura
- Has a wound and hypertension
- Has gangrene or necrotic tissue in a wound
- Has a wound and diabetes