

Mission

The mission of the Atlanta VA Rehabilitation Research and Development Center is to improve the everyday function and quality of life of aging Veterans with vision loss and their caregivers.



This mission will be accomplished by:

Research directed toward a multidisciplinary understanding of the mechanisms causing and interacting with vision loss and then applying this understanding to develop creative interdisciplinary rehabilitative interventions.

Incorporating these creative rehabilitative interventions into comprehensive rehabilitation that accounts for multifactorial disabilities associated with aging and common comorbidities to improve everyday function and quality of life for the whole person.

Evaluating, in concert with VA and other clinical Rehabilitation Services, the utilization, cost-effectiveness, and satisfaction associated with these interventions.

Personnel

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Investigators

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The Center collaborates with Emory University, Georgia Institute of Technology, University of Georgia and Georgia State University, as well as with many clinical service programs within and outside the Department of

Rehabilitation R&D Center of Excellence for Aging Veterans with Vision Loss



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Research Areas

The Center's R&D Program focuses on understanding the relationship of visual impairment (from low vision to total blindness) and normal age-related vision loss to disabilities that affect the everyday function and quality of life of aging Veterans. To encourage development of comprehensive rehabilitative interventions, three interactive research areas are emphasized.

Environment

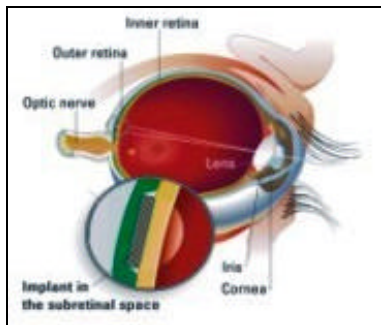
This physical and social environmental research area studies building conditions, (e.g., lighting levels), objects used in everyday activities, and behavior related to everyday activities and social interaction (especially that of caregivers).

Mobility

This research area studies the effects of physical function and performance on independence in the environment. Research includes orientation and mobility, exercise, biomechanics and physical therapy.

Cognition

This research area studies visual based cognitive performance and function including perception, attention, memory, problem solving, and print text comprehension/literacy.



ASR Retinal Prosthesis –
Courtesy of Optobionics Corp.

Selected Research

VA Funded

- Accelerated Transcranial Magnetic Stimulation for Refractory Depression in Parkinson's disease
- Team Functioning & Patient Outcomes – an RCT in Process Improvement
- A Method for Improving Localization Abilities in Individuals with Visual and Auditory Impairment
- Improving Functional Health Literacy in Older Veterans
- An Integrated Wearable Computer Orientation and Wayfinding Aid
- Virtual Therapy: Using Telerehabilitation to Support PT & OT Services
- Development of an Environmental Intervention to Improve Wayfinding in Demented Nursing Home Residents
- Remote Controlled Retractable Cane for the Visually Impaired
- Neurotrophic Effect of Subretinal Electrical Stimulation
- ASR Retinal Prosthesis Efficacy Evaluation
- Dynamic Visual Acuity & Fall Risks in Older Adults with Vestibular Loss
- Improving Wayfinding in Demented Nursing Home Residents
- Longitudinal Effects of Sensory & Cognitive Aging on Health
- Talking Braille for Universal Information Access and Wayfinding
- Assessing Help-Seeking Behavior as a Predictor for Participation in Visual Impairment Rehabilitation
- Caregiver Burden and the Rehab of Aging Visually Impaired Veterans

Non-VA Funded

- Extremity Constraint Induced Therapy Evaluation (EXCITE)
- Environment Interventions to Reduce Nursing Home Noise at Night
- Visudyne Therapy Effect on Functional Vision
- Visual Processing & Smooth Pursuit Eye Movements
- Center for Research on Symptoms Interactions and Health Outcomes
- Center for Alternative Medicine: Movement Analysis Core
- Spinal Circuits & Musculoskeletal Systems – PPG
- Deep Brain Stimulation and Forces Control in Parkinson's
- RERC on Workplace Accommodations
- Neural Control of Visual-Vestibular Behavior

Pedestrian Signal LED's transmit a digital signal over the width of the cross-



Wearable computer wayfinding aid decodes Pedestrian Signal and determines direction.