

REHABILITATION TECHNOLOGY

AUTHORITY

Rehabilitation Act of 1973 as amended, Section 103(a)
Federal Regulation – 34CFR361.48
State Administrative Regulation – 78 KAR1: 040

*For the purpose of this manual, use of the terms **must** and **shall** reflect requirements of Federal law or regulation or state law or administrative regulation and must be adhered to strictly.*

DEFINITION

Rehabilitation Technology is the systematic application of assistive technologies, engineering methodologies, or scientific principles to meet the needs of and address the barriers confronted by individuals with disabilities, rehabilitation, employment, transportation, independent living, and recreation. Rehabilitation Technology includes mechanical, electronic, and microprocessor-based equipment, non-mechanical and non-electronic aids, specialized instructional materials, services and other compensatory strategies for people with disabilities. It also includes compensatory strategies as well as aids and devices.

Rehabilitation technology is the process, or comprehensive set of services, that accompany an appropriate piece of equipment for a person with a disability. This process can include provision of information, evaluation and recommendations, fitting, training, maintenance, and follow-up with a prescribed or fabricated aid or device.

WHEN TO CONSIDER REHABILITATION TECHNOLOGY

The use of rehabilitation technology services should be considered:

- at intake and during evaluation of rehabilitation potential
- at determination of eligibility
- during plan development
- during plan implementation to facilitate consumer's progress
- at placement into employment
- during post-employment services

When deciding whether a consumer may benefit from rehabilitation technology services, the counselor should consider the following:

- Would the provision of rehabilitation technology enhance employability?

- What do the individuals want or need to do that they are currently unable to do efficiently/effectively?
- In what specific activity (or activities) does the individual wish/need to engage? (e.g., secretarial work, college course work, cooking, grooming, speaking, stair climbing, driving, etc.)
- How does this desired/needed activity relate to employment?
- What specific aspects or components of this activity are impeded? (e.g., reaching, lifting, manipulating small objects, reading, telephoning, etc.)
- What is (are) the specific functional limitation(s) associated with the conditions that preclude or impede performance? (e.g., lack of finger function, unable to grasp objects, total deafness, etc.)
- How do the specific performance demands of the activity interact with the individual's specific functional limitations to create the performance problem? (e.g., unable to dial telephone, unable to read small typeface on insurance documents, unable to hear warning signals, etc.)
- What kind of help is wanted/expected from the Rehabilitation Technology Branch? (e.g., evaluation only, referral to existing/local resources, device development, other, etc.)

THE ROLE OF THE REHABILITATION TECHNOLOGY BRANCH

Once the counselor and consumer decide that the consumer may be able to benefit from the provision of rehabilitation technology services, the counselor has a couple of options. The counselor, working with the consumer, may provide the services directly: performing an assessment, selecting equipment, training the consumer, following up with the consumer on its appropriate use. Another option is to refer the consumer to the Rehabilitation Technology Branch for services. The Department has four rehabilitation technology coordinators (RTCs), two rehabilitation engineers, and two driver rehabilitation specialists on staff to perform assessments, make recommendations, provide training, and insure adequate follow up. The counselor should refer to the Department Directory for the rehabilitation technology staff member that serves his or her area.

HOW TO MAKE A REFERRAL

To access rehabilitation technology services, the counselor completes the front page of the DVR-RT1 (Rehabilitation Technology Referral Form). This form can be completed in hard copy or by using the Department's field automation system and forwarded to the regional RTC (rehabilitation technology coordinator). The RTC will work with the counselor and consumer to determine a viable recommendation resulting in a prescription for services. The counselor and consumer will decide whether the recommendations are essential to achieve a successful rehabilitation outcome.

WHAT TO EXPECT

Once the referral is received, the rehabilitation technologist/engineer should contact the consumer within 10 days. Barring unforeseen circumstances, the technologist/engineer will schedule a time to see the consumer within 10 days of the first contact. After an assessment is completed, the technologist/engineer will produce a report that will include one or more recommendations for the consumer. Adaptive equipment and products may be recommended which compensate for the functional limitations individuals experience. Restructuring of tasks, activities, and the environment may also be recommended. Some examples are:

- Architectural designs/modifications for home, for job site
- Personal care arrangements
- Occupational therapy techniques
- Environmental modification
- Restructuring jobs/flextime, job sharing
- Home-based employment

Examples of adaptive equipment and products that may be recommended include:

- **Sensory aids** such as talking computers, telecommunication devices for the deaf, hearing aids, audio tapes and records, optical readers and character recognition software (e.g., Kurzweil Reader), print magnifiers (e.g. Optacon), and low vision aids.
- **Mobility/ambulating aids** such as canes and walkers, powered wheelchairs, control devices for wheelchairs (puff and sip, joystick), manual chairs and special adaptations, vehicle modifications, prosthetic/orthotics (artificial limbs, splints, braces), ramps, step stools with rails, automatic door openers, and customized equipment for body support, alignment, and positioning.
- **Aids for daily living** such as environmental control (sound activated switch, eye movement switch, large surface switch), bathing and personal care aids (tubs, grab rails, toilet adaptations, incontinence bags), dressing aids, reachers, adapted clothing, eating and food preparation aids (robotics and appliances, feeders, special utensils), and respirators.
- **Speech and written communication/computer/access aids** such as communication, writing and access aids (automatic page turners, head pointers), augmentative communication systems (lap boards, electronic speech, input and output devices, talking cards), mouthsticks, and computers with special software.
- **Devices for sustaining work activity** such as book holders, modified agricultural equipment, height adjustable work tables, machines modified with holding jigs, adaptive switches, safety guards, etc., adjustable chairs, magnetic boards, large and small double-sided suction cups, non-slip matting, and custom seating.

PAYMENT AND EXCEPTIONS

The Department maintains a separate budget unit for rehabilitation technology expenditures. This budget is intended to prevent counselor caseload budgets from being consumed by expensive rehabilitation technology equipment. Items such as computers with special adaptations, environmental control units, augmentative communication devices, customized work-related equipment fabricated by the rehabilitation engineers, home modifications, and automatic door openers can be purchased using the rehabilitation technology budget. Medical equipment that has traditionally been purchased through caseload budgets in the past such as wheelchairs, hospital beds, etc. **are not** to be purchased using the rehabilitation technology budget. Computers with no disability-related adaptations are generally not to be purchased using the rehabilitation technology budget. The counselor should consult with the rehabilitation technologist/engineer on what are appropriate rehabilitation technology expenditures.

Rehabilitation technology that will be used primarily in the home such as environmental controls can only be provided if it is essential for an individual to prepare for or go to work or if the residence will be the primary place of employment.

SIGNOFF AND DOCUMENTATION PROCEDURES FOR PURCHASES MADE USING THE REHABILITATION TECHNOLOGY BUDGET

The following procedures are to be followed when purchasing rehabilitation technology devices and services:

- For items costing under \$10,000 – The counselor makes the decision with the consumer's input. The counselor can seek an assessment from the rehabilitation technologist or a third-party vendor to help insure that the rehabilitation technology is appropriate for the consumer.
- For items costing \$10,000 and over - The counselor makes the decision based on the rehabilitation technology prescription with Branch Manager, Regional Administrator and Division Director of Program Services approval.

Use an EP8-3 form to inter-account services provided at the Carl D. Perkins Comprehensive Rehabilitation Center or purchased from another state agency.

COMPARABLE BENEFITS/FINANCIAL NEED

There is no requirement for use of comparable services and benefits for rehabilitation technology (34CFR361.48). Rehabilitation technology services and devices, including vehicle modifications, in general, are excluded from a financial needs test.

However, an economic need test must be applied for vehicle and property modifications in excess of \$10,000 (State Plan, Attachment 6.9(c)(2). Individuals who are not consumers of the Department in need of driver rehabilitation technology services may purchase services on a fee-for-service basis. Priority of scheduling will always be given to Department consumers.

Some of the most common funding sources include:

- Private health insurance
- Medicaid
- Medicare
- Veterans Administration
- State and local agencies
- Workers' Compensation
- Social Security Work Incentives (PASS/IRWE)
- Special Education Funds
- Philanthropies (business, private foundations, health organizations, service clubs)
- Miscellaneous (state crime victims compensation, loans, media resources)
- Kentucky Assistive Technology Services (KATS) Network

GENERAL PRINCIPLES OF REHABILITATION TECHNOLOGY

A. Focus on Abilities, Not Disabilities

Rehabilitation technology improves individual function by making optimum use of the person's existing functional capacities and abilities. What the person can do is used as the starting point, and environments, tasks, and activities are modified to make maximum use of abilities. Technology is used to enhance these abilities whenever possible.

B. Focus on the Environment

Rehabilitation technologists assume that the problem is in the environment, not the person. They focus on the setting the person is in and the way the person interfaces and interacts with it. Traditional approaches to vocational rehabilitation emphasized changing the person's capacities and abilities to match job requirements. Rehabilitation technology emphasizes changing job environments and requirements to match the capacities and abilities of persons with disabilities.

C. Common Sense

Always prefer obvious solutions, based on common sense. Rehabilitation technology is sometimes confused with "high tech and high cost," but solutions to functional

problems often require only simple changes. If a person's wheelchair won't fit under a desk, remove the middle drawer. If that doesn't provide enough clearance, put small blocks under the desk legs.

Studies of work place modifications indicate that half have no cost at all, and 30% of the remainder cost less than \$500. Simple changes in the work space such as moving things around so the person can reach or see them, raising or lowering the heights of work benches, desks, or chairs, and so on, may be all that is needed.

D. Be Specific

A good understanding of the problem is essential to rehabilitation technology. The person's functional capacities and the specific tasks, activities, and settings to be performed should be accurately identified as the first step in the use of technology. Persons with disabilities vary in the extent to which they will accept and use technology on a day by day basis. This needs to be carefully explored with the person before a large investment is made in the purchase of adaptive technology and devices.

Persons with disabilities frequently accommodate to the limitations of disability by developing unique ways to get things done. Consumers can suggest ways and approaches to solve a problem based on their experience provided they know what the problem is.

Identifying and Choosing Adaptive Devices

A multi-disciplinary team applies rehabilitation technology better than one specialist working in isolation. Occupational therapists, physical therapists, speech-language pathologists, special education teachers, engineering technicians, skilled craftsmen, and others often deliver services in a team approach.

In some cases, the consumer and counselor, perhaps with input from other family members, may have enough collective expertise to select and use rehabilitation technology appropriately for a given need. In other cases, an assessment by a physician, therapist, or rehabilitation engineer can help persons better identify their functional abilities and suggest devices compatible with the user's needs. It is important to make informed choices in the purchase of such devices. Information on technology is available from a variety of sources.

Where an individualized prescription and fitting of a technological aid or device is involved, persons certified or licensed in accordance with state law should perform the service. Licensed persons include hearing aid dispensers and fitters, occupational therapists, optometrists, physical therapists, and speech pathologists.

Is the person comfortable with the decision or strategy? Is it consistent with the consumer's self-image? Technology should not draw attention to disability or make

the individual more uncomfortable. Where appropriate, the IPE should include a statement of the specific rehabilitation technology services to be provided to assist in the implementation of intermediate objectives and long-range rehabilitation goals for the individual.

COMPUTER HARDWARE AND SOFTWARE

Policies and procedures for the purchase of computer hardware and software can be found in the Department's Administrative Regulations 781 KAR 1:040, Section 2 that states:

The Department of Vocational Rehabilitation shall not purchase computers, microcomputers, other hardware or software for the personal use of consumers. The Department may consider the provision or upgrade of computer hardware and software when:

- 1. The equipment is essential to compensate for the limitations caused by the disability; or*
- 2. The equipment is required for the consumer to achieve a vocational objective of competitive employment; and*
- 3. One or more of the following criteria shall be met:*
 - a) The equipment is required for vocational preparation;*
 - b) The equipment is required by the job and no provision is made by the employer to supply the equipment; or*
 - c) The equipment will enable a consumer to become competitive with non-disabled employees performing the same duties.*

One (1) computer upgrade or replacement may be provided for an eligible individual if needed for obtaining and maintaining employment (781KAR 1:040, Sect. 3). Generally speaking, the department shall not provide more than one (1) computer upgrade or replacement per individual. The department may approve a second time upgrade or replacement under the following conditions:

- a) The eligible individual has demonstrated a two (2) year continuous work history; and*
- b) The eligible individual's employer attests that the upgrade or replacement is needed to maintain employment (781KAR 1:040, Sect. 4).*

The counselor should obtain a rehabilitation technology prescription before considering the purchase of computer hardware and software. If a computer is provided for a consumer to compensate for the limitations caused by a disability, then it should be considered rehabilitation technology and be purchased with funds from the rehabilitation technology budget. If the computer is purchased to achieve a vocational objective, **but does not address the limitations of a disability**, it should be treated as a tool and purchased using caseload funds. In this situation, the

rehabilitation counselor should conduct a search for comparable benefits before purchasing the computer.

Any purchase must be consistent with the guidelines and procedures found in Administrative Regulations and should follow the best practices found in the Fiscal Concerns section of the counselor's manual.

TECHNOLOGY FOR CONSUMERS WITH HEARING LOSS

Before purchasing any of the following devices, a communication assessment should be completed to determine the consumer's communication needs. Consumers with hearing loss are to be served by a Communication Specialist or a Rehabilitation Counselor for the Deaf (RCD) depending on the preferred mode of communication. The Communication Specialist is specially trained in the communication needs and devices for those who are hard of hearing. The RCD is specially trained in effective technology for consumers who are deaf.

Hearing Aids

The primary function of a hearing aid is to amplify and enhance residual hearing of the consumer with hearing loss; it does not restore lost hearing. There are several different kinds of hearing aids and a wide variety of circuits that can be used on a hearing aid to meet the consumer's unique need to enhance effective communication.

Most hearing aids have several controls that are adjusted by the user and the hearing aid dispenser. Most hearing aids have a volume control that can be adjusted by the user. Not all hearing aids have a telecoil (T) setting. The telecoil is an electrical component of a hearing aid. When the hearing aid is set on T, it is sensitive to an invisible electromagnetic field generated from a nearby telephone handset or several kinds of assistive listening devices.

Individuals licensed or certified in accordance with State laws should perform individualized prescriptions and fittings.

Before purchasing a hearing aid:

1. A communication assessment covering communication difficulties in basic areas such as face to face communications, telephone communications, environmental sounds and situations, small group and large group situations and electronic media/special equipment in settings such as work, school/home, etc. should be completed.
2. A telecoil (switch or button) and a manual volume control or a separate program setting for the telecoil should be included in the hearing aid purchase for consumers who are hard of hearing. These features will be needed by the

consumer to utilize telephones and/or interface with assistive listening devices in order to address problem areas identified in the communication assessment.

3. Communication Specialists will need to obtain a copy of the manufacturer's price list using the single unit price per hearing aid. Please refer to the most current Service Fee Memorandum for the current hearing aid practices. Hearing aids are purchased out of the counselor's regular budget, not rehabilitation technology.

Assistive Listening Devices

Many times, the hearing aid is not able to do everything that consumers expect and we should look beyond the hearing aid in order to obtain full access to all available communication and information. This is when Assistive Listening Devices are useful. Assistive Listening Devices (ALDs) are used to direct the source of sound to the ear by way of the telecoil or direct audio input jack on the hearing aid, or with other types of listening options (stetoclip, earbuds, or headset). An assessment of the consumer's work/school communication needs should be done to determine if the consumer will need to use ALDs in a classroom or meeting room setting with one speaker or in a group where there might be more than one person speaking in a group. A prescription is not needed to purchase these types of devices.

Telecommunication Devices

Telecommunication devices for consumers with hearing loss should be considered to maintain contact with the consumer who is deaf or hard of hearing in counseling, training, job placement, and other services. Devices may also enhance placement opportunities by providing a means for the person to contact employers, or relay necessary messages. An assessment of the person's job description and communication demands of the job can be useful in determine the consumers need for telecommunication devices. The person's reading, typing skills, and speech skills need to be considered when purchasing a TDD or a voice carryover (VCO) phone. If the consumer is in need of amplification on the phone, the make and model of the phone will need to be obtained to ensure the amplifier is compatible with the phone.

Alerting Devices

These devices may need to be used in situations where the consumer can not hear sounds, or signals. These devices can be in the form of a vibrating or a flashing light where a consumer uses their other senses to be alerted to information being conveyed in their environment. Some examples are a vibrating or flashing signaler to alert someone who can not hear the audio sounds of the alarm clock, a doorbell or doorknocker, a phone ringing, or who can not hear their page from a public address system. Some alerting devices might be used to increase the volume of a normal sound, such as a telephone ringing, or to distinguish one sound over another. Alerting devices can be used in work, school, or home settings or even when traveling. These might be necessary for individuals with hearing loss to do the essential functions of

their job especially if they rely on a signal to let them know to move on to their next job duty.

Telesensory Devices

Telesensory devices for consumers who are blind or have visual impairments range from hand held magnifiers to electronic devices. When considering the purchase of a device for a consumer with residual vision, counselors should consider a low vision evaluation performed by an ophthalmologist or a certified low vision specialist to ensure that the device will not damage remaining sight.

DRIVER REHABILITATION TECHNOLOGY SERVICES

Driver Rehabilitation Technology Specialists assist the counselors in identifying an individual's mobility needs. Driver Rehabilitation Technology Services consists of three program areas: driver evaluation, driver training, and vehicle modification consultation.

Referral

To refer a consumer for driver rehabilitation services, the counselor should complete the referral packet (contact the Lexington or Louisville Driver Rehabilitation Technology Services office for referral packet). The completed referral packet should be sent to the Lexington Driver Rehabilitation Technology Services office. When the completed packet is received, the driver rehabilitation technology services requested will be scheduled at the most convenient evaluation site.

Even though individuals may possess a valid driver license, they may still need to be referred for driver evaluation services as a result of a subsequent acquired disability (e.g., brain injury, stroke, spinal cord injury, and multiple sclerosis).

Driver Evaluation

Driver evaluation services may be provided to consumers in order to:

- identify driving potential of individuals with physical and/or cognitive disabilities;
- identify the need for driver training;
- identify the need for adaptive equipment and/or vehicle modification;
- ensure that individuals are able to comply with Division of Driver Licensing laws and regulations;
- ensure vehicle modifications are in compliance with current industry standards.

Since functional capacities may change due to the nature and severity of various disabilities, the recommendations made by the Driver Rehabilitation Technology Specialist are valid for no more than one year from the date of the initial evaluation.

Driver Training

Driver training provides instruction on how to operate a vehicle safely with or without modifications. An economic needs test is not a condition for furnishing driver training.

Driver training services may be indicated if the driver evaluation report recommends driver training. An approved driver training vendor may provide training. A driver rehabilitation technology specialist provides driving instruction only under special circumstances such as: high tech equipment orientation, extended evaluation, or specialized training.

Vehicle Modification and Repair

Vehicle modification is any of a number of adaptations to a vehicle that results in making it more accessible or operational for the individual with a disability. Vehicle modification may be provided only after the individual completes a driver evaluation and vehicle modification assessment and a recommendation is made by a driver rehabilitation technology specialist.

The policies and procedures for providing vehicle modifications are found in the KY DVR Administrative Regulations (781 KAR 1:040, Section 5). Some main points to remember for vehicle modifications costing more than \$5,000 are:

- an individual must have a vocational objective of competitive employment;
- an individual must be within two (2) years of job placement;
- the modification can be performed on a used vehicle only after it has been inspected by one of the Department's driver rehabilitation specialists who has attested that the vehicle's overall condition can justify the modification (781 KAR 1:040, Section 6).

It is important to note that DVR will only pay for modifications to the extent necessary so individuals can successfully complete their rehabilitation program. Therefore, if medical evidence indicates that an individual can transfer independently into and out of a car or truck, a van modification probably would not be necessary and DVR would only pay up to the maximum cost of the automobile modification if the consumer chooses to pursue a van modification.

Often, consumers are eager to drive. The counselor should discourage an individual from purchasing a vehicle before:

1. an evaluation has been completed and recommendations made by the Driver Rehabilitation Technology Program;
2. the IPE to provide services has been approved by the field administrator and the Director of Program Services or the Director's designee.

The Department can provide a second vehicle modification to an individual. A second modification cannot be provided until seven (7) years after the first modification. In addition, the individual must have been working continuously for two (2) years prior to the second modification and the individual's employer must attest that the modification is needed for the individual to maintain employment (781 KAR 1:040, Section 8).

For specific modifications costing less than \$5,000, the counselor may approve modifications to a vehicle when the following conditions apply:

- modification is simple and is not related to overall vehicle engine or body condition;
- modification is not of a significant structural nature; and
- maintenance records and overall condition of the vehicle can justify modifications.

PROPERTY MODIFICATION

Policies and procedures dealing with modifications to private property can be found in the Department's Administrative Regulations 781 KAR 1:040, Section 9. Counselors must be certain that the consumer owns the property before considering making any modifications. If the consumer rents, the counselor must approach the landlord to make the modification as an Americans With Disabilities Act (ADA) accommodation. If the landlord will not make the accommodations, counselors should consider only temporary, recoverable modifications.

Permanent, unrecoverable modification to private homes, businesses or property is an allowable expenditure if such is necessary to affect the vocational rehabilitation of the individual. **The individual must meet economic need qualifications** (State Plan, Attachment 6.9(c)(2)). The counselor shall make every attempt to utilize recoverable, nonpermanent modifications if possible or cost effective.

The Department may provide essential services necessary to alter or adapt the work situation to enable the consumer to obtain employment or to ensure the continuation of employment. This may include, but is not limited to, the building of a permanent ramp for a wheelchair, modification of an entryway, or modification of a bathroom to enable someone to prepare to work. In some cases, more extensive modifications of a home may be needed if the individual will be working at the residence. However, property modifications over \$10,000 are only allowed if there is documentation that failure to provide the modification would preclude the successful achievement of the

employment goal. The Director of Program Services must approve such modifications (781 KAR 1:040, Section 9).

Guidelines for Property Modification Service Providers

All service providers must comply with federal, state, and local laws, rules, and regulations pertaining to construction, modification, or repair. Service providers must obtain building permits if required and hold appropriate credentials to perform the work. Liability insurance and worker's compensation insurance should be carried by the contractor/service provider or manufacturer.

The contractor/service provider will notify the rehabilitation technologist when the authorized property modification has been completed. The Department of Vocational Rehabilitation will then process payment to vendors of property modification services after a rehabilitation technologist has conducted a final visual inspection. The technologist will also make other inquiries as necessary to determine that the contractor/service provider has complied with the Department guidelines and that the authorized property modification is complete.

The counselor should not complete payment for any property modification until visual inspection and written authorization have been received from a rehabilitation technologist.