



**TECHNICAL AID TO THE DISABLED (SA) INC.**

**PO Box 540, Modbury, South Australia 5092**

Telephone: 08) 8261 2922  
(Mon-Fri 9.00am-5.00pm)

State-wide Local Call -  
1300 663 243

Website: [www.tadsa.org.au](http://www.tadsa.org.au)  
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Fax: 08) 8261 2922

# NEWSLETTER

No. 149 - WINTER, 2009

## 2009 DisABILITY AND AGEING Expo

Amalgamated with Disability SA Health and Wellbeing and Post  
School Options expo

ADELAIDE SHOWGROUND

Jubilee Pavillion

FRIDAY 14<sup>TH</sup> AUGUST, 2009

10am – 4pm

A free Expo about health and wellbeing of people of all ages –  
including people with a disability and ageing, parents, caregivers  
and general community.

*(leaflet enclosed with this newsletter)*

### **TADSA's VISION**

To be a leader in developing unique and innovative equipment for people with disabilities in  
South Australia

### **TADSA's MISSION**

To improve the lives of people with disabilities, the frail, the aged and those who care for or  
assist them through the development of unique and innovative equipment, using the skills of  
volunteers and staff



**We gratefully acknowledge the sponsorship of this issue of our Newsletter  
by the Lions Club of Blackwood Inc.**

## TADSA INFORMATION

**Technical Aid to the Disabled (TADSA)** is an Australia wide voluntary Organization, with branches in every State. Technical members are people with skills in many fields, who give their time to helping people with disabilities and elderly people with practical problems for which no completely satisfactory commercial solution is available. This may require modifications to existing equipment, or the construction of new, specialised aids. Sometimes we can provide the means to overcome difficulties that had seemed insurmountable.

**Technical Aid to the Disabled (SA) Inc.** is based at The Royal Society for the Blind, Gilles Plains, on site with The Royal Society for the Blind, Disability Services SA, Disability Services SA-ILC, and Adult Therapy Solutions. Our members work, where necessary, in close cooperation with health professionals. If you have a problem for us to solve, or if you know someone who has, contact us at the TADSA office. No referral is necessary; cost is normally only that of materials used, service charge and expenses actually incurred (usually small).

**Volunteers Needed** - If you have skills in the mechanical, carpentry, electrical or electronic fields, you might like to use some spare time on this challenging and most rewarding work. TADSA is always seeking more volunteers. If you would like to know more about how you could be part of our team, please telephone either the Project or Office Manager on 08) 8261 2922.

**Freedom Wheels Program** is a national program involving all state TADs working with Amway One By One Foundation to develop a range of standard add-ons that fit on a range of standard bikes. This now means that an Occupational Therapist or Physiotherapist can “prescribe” the attachments needed to correctly support a child, and a bike set up by TAD technical volunteers to suit is delivered to the child. For further information contact the TADSA Freedom Wheels Program Manager, Tony Scully at the TADSA office.



**Page-Turner Loan Program** - TADSA have 12 mechanical page-turners for loan to people with severe disabilities. A small fee for this loan is requested. Each machine has been modified to allow connecting the most suitable control device. Contact Julie in the office for further information.

**Rugged Terrain Electric Wheelchair Program** - TADSA has two Electric Wheelchairs available for loan to people with severe disabilities living in rugged terrain. For further information, contact Julie in the Office.

### **Home Phone Numbers for Urgent TADSA Business –**

Chairman -Richard Jackson - 8294 8591 (H)  
0412 895826 (mob)  
Secretary – Tony Scully – 70000022  
Office Manager -Julie Peak - 0411 240118(mob)

### **WHEN YOU ARE CONSIDERING YOUR WILL....**

*Technical Aid to the Disabled (SA) Inc. (TADSA) provides an important service to people with disabilities in South Australia. While all work is carried out by volunteers, administrative costs need to be met. TADSA relies heavily on private donations from the public to help cover these costs. People with disabilities need your help. When making your Will, please remember this Organization as a very deserving charity. Your legal adviser will tell you how best to include your donation in the document.*

Supported by



**Government of South Australia**

Department for Families  
and Communities

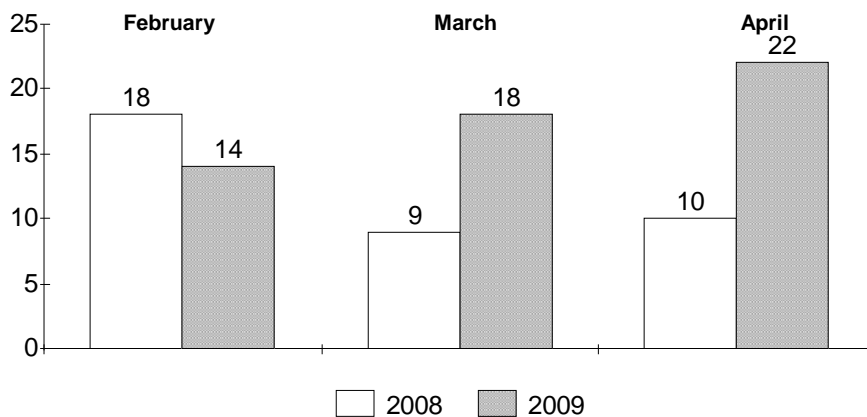
## PROJECTS ASSIGNED TO MEMBERS

1<sup>st</sup> Feb – 30<sup>th</sup> April - (*tp = technical project ap = assessment by Project Manager*)

Proj No.	ap/tp	Project Title
2009-153	tp	Call Bell Modification
2009-154	ap	Walking Aid Assessment
2009-155	tp	Toilet flushing stick
2009-156	tp	Chair Modification
2009-157	tp	Pool Cue Repair
2009-158	tp	Key switching Modification
2009-159	tp	Battery powered lamp prototype
2009-159	tp	Computer Setup
2009-160	tp	Bedrail Modification
2009-161	ap	Drink Holder Assessment
2009-162	tp	Leg Lifter for bed
2009-163	tp	Shower Access Investigation
2009-164	tp	School chair Modification
2009-165	tp	Hinged Bicycle Crank
2009-166	tp	Drink holder
2009-167	tp	Phone Switch Repair
2009-168	tp	Mouth sticks
2009-169	ap	Door Switch
2009-170	tp	Call Device Setup
2009-171	ap	Treadmill problems
2009-172	ap	Remote for Outside Blinds
2009-173	tp	Bed-stick Modification
2009-174	tp	Treadmill Repair
2009-175	ap	Child proof gate Assessment
2009-176	tp	Phone Stand
2009-177	tp	Senior Pilot for Environmental Control
2009-178	tp	Big Button Phone Setup
2009-179	tp	Long Handled Shaver Holder
2009-180	tp	Belt Clip for Purse
2009-181	tp	Leg Splints Repair
2009-182	tp	Gate Opening Device
2009-183	tp	Fry Pan Timer
2009-184	tp	Phone Access Investigation
2009-185	tp	Assemble Drawers
2009-186	tp	Pouring Device
2009-187	ap	Self Feeding Device
2009-188	tp	Radio Modification
2009-189	tp	Craft Table
2009-190	tp	Wheelchair Brakes Repair
2009-191	tp	Drinking Bottle
2009-192	ap	Walker Mount on Scooter
2009-193	ap	Hand Held Shower
2009-194	fr	Freedom Wheels Bike Repair
2009-195	tp	Phone Holder
2009-196	tp	IR Relay Boxes (2)
2009-197	tp	Wheelchair Tray
2009-198	tp	Mounth Organ Stand
2009-199	tp	Walker Mount on Scooter
2009-200	tp	Bed Blocks
2009-201	tp	Magnifyer Support Frame
2009-202	tp	Vibrating Door Bell
2009-203	ap	Drip Stand Table

2009-204	tp	Arm Supports on Bike
2009-205	tp	Program Senior Pilot controller
2009-206	tp	Rebuild Ocular Units (6)
2009-207	ap	Hair Dryer Mounted on Wall
2009-208	tp	Spa Tester with Audio Readout
2009-209	ap	Bowling Ramp
2009-210	tp	Bike Frame for Car
2009-211	tp	Night Alarm Device
2009-212	ap	Showering Support
2009-213	tp	Toilet modification
2009-214	tp	Patient Locater Signalling Device
2009-215	tp	Swing Table
2009-216	ap	Bathroom Access
2009-217	tp	Walker Carrier for car towbar
2009-218	ap	Chair modification
2009-219	tp	Trolley modification
2009-220	tp	Showering Support
2009-221	tp	Bed Controller - repair
2009-222	tp	Archway Door
2009-223	tp	Footrest
2009-224	ap	Bedtable
2009-225	tp	Table with Tether for Reclining Chair

**Comparison Statistics**  
**Projects Allocated - Jan, Feb & Mar**



**NEW TECHNICAL MEMBERS**

Welcome to -  
Patrick, Ron & Lisa

## OCCUPATIONAL HEALTH AND SAFETY

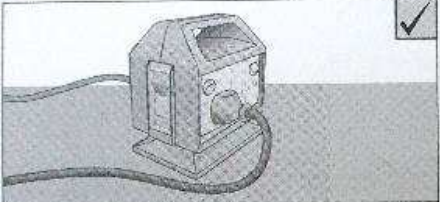
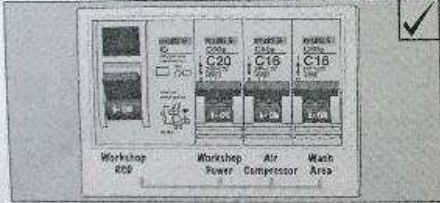
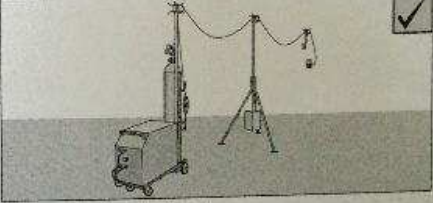
### ***Preventing electrical shock from power tools and electrical leads***

*(Article from WorkSafe Victoria)*

Workers using portable power tools and electrical leads that are electrically faulty or damaged, may suffer electrical shock, which could result in death, heart problems, internal organ damage or burns.

#### **When using electrical leads and power tools –**

- visually inspect prior to use – don't use equipment if it has been modified or damaged
- plug tools into socket outlets that are protected by a residual current device (RCD) or use a portable RCD (RCDs are also known as safety switches).
- plugtop type RCDs should not be fitted to power tools or equipment, as the RCD cannot be readily tested.
- ensure power circuits are protected by the appropriate rated fuse or circuit breaker to prevent overloading
- if the circuit keeps overloading, don't increase the fuse rating as this creates a fire risk due to overheating
- arrange electrical leads so they will not be damaged. Avoid running across the floor or ground, through doorways and over sharp edges. Use lead stands or insulated cable hangers to keep leads off the ground
- don't use leads and tools in damp or wet conditions, unless they are specially designed for those conditions.
- to ensure RCDs continue to provide shock prevention, implement an electrical testing regime.

The solutions		Further Information
	✓	<b>WorkSafe Advisory Service</b> Toll-free: 1800 136 089 Email: <a href="mailto:info@worksafe.vic.gov.au">info@worksafe.vic.gov.au</a> <a href="http://worksafe.vic.gov.au">worksafe.vic.gov.au</a>  <b>Australian Standard</b> AS/NZS 3760 – In-service safety inspection of electrical equipment.
	✓	
	✓	
RCD protected portable power board.		
RCD protection fitted to power circuits.		
Extension lead run on lead stands.		

**A Personal Experience** – TADSA Technical Member Joe had a very narrow escape a while back, when he picked up a power cord that had been left by a previous user in his workplace, plugged it in, then walked with the cable in his hand, unraveling it as he went along. He reached the end of the cord, completely unaware that someone had cut the end off! Joe received a severe electrical shock, but had the presence of mind to fling the cord around a nearby verandah post, which wrenched the live cord out of his hand, possibly saving his life. Joe was left lying on the ground suffering from shock, but thankfully, survived his ordeal. He now checks that the cord he is using is safe – damaged electrical cords need to be safely disposed of or repaired immediately.



*Joe's damaged electrical cord*

## HOW IT WAS DONE

*Please Note – Personal names have been altered to respect client's privacy*

### Project 2009-033 Technical Member

### - Camera Mount - Wolfe

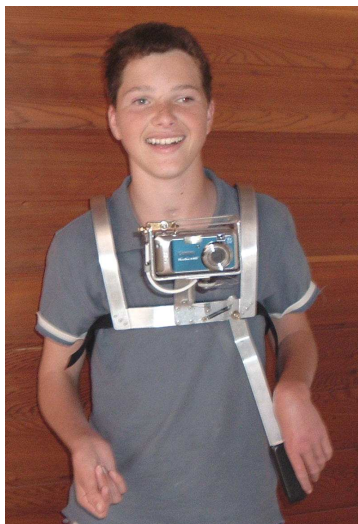


James has a passion to take photos, especially when his school goes out on excursions. He faced two problems however. Firstly he is unable to hold the camera, (let alone hold it still long enough to frame the picture he is after) and secondly, the major problem, his inability to press the shutter button.

To help with the first problem, technical member Wolfe made a harness that positioned the camera in front of James in such a way that he could see the LCD display.

The harness had to be light enough not to weigh James down, but strong enough to hold the camera steady. To achieve these goals the harness was made of 20x3 aluminium strip with Velcro at the back to hold it in place. Foam rubber was positioned under the strip where it went over the shoulders to prevent rubbing.

Pushing the shutter button was a difficult problem, several ways were tried, from a modified pepper grinder body to twist handles. Photos of a similar project were examined and finally it was decided to mount a lever on the harness that James could push against with his hand.



*Going by the look on young Jame's face we have another Edward S Curtis in the making.*

*Photos taken by Wolfe*

**TOTAL DESIGN & CONSTRUCTION - 27 hours**

## **Project 2008-119 - Power outage alarm for CPAP machine**

**Technical Member - Gary**



Simon uses a CPAP machine almost twenty-four hours a day. The main cause for concern is if the power running the CPAP machine was to fail during the night. The family has a portable generator but they need to be aware the power has failed before they can start this.

Technical member Gary came up with the idea of using a household smoke detector. This would detect the presence of the voltage produced by a plug pack plugged into the same outlet as the CPAP machine.

A plug pack was used rather than connecting the smoke detector to the mains via a suitable circuit, as the plug pack is intrinsically safe in its failure mode, and is highly unlikely to apply 240 volts to the smoke detector.

When this voltage fell below a certain level the smoke detector would emit a high intensity alarm to wake up the carer or Simon's wife.

*Photos taken by Gary*



**TOTAL DESIGN & CONSTRUCTION TIME: 9 Hours**

## **Project 2009-039 - Reinforced Toilet Seat**

**Technical Member - Michael**

We were asked by Disability SA to help a young autistic lad who would sit on the toilet and rock backwards and forwards, so much so that the rocking motion was constantly breaking the plastic hinges on the toilet seat. The young boy's father, who also had a disability, was regularly replacing the toilet seat.



Technical member Michael purchased a new wooden seat and proceeded to armour proof it. Heavy brass hinges replaced the original, fashionable but physically weak

standard hinges.

The lid was hinged off the seat and the seat was then hinged off the toilet bowl. Brass screws fixed the hinges to the lid and seat, while stainless steel screws were used to fix the hinges to the toilet bowl. A brass packing piece was used to level everything out.



*Photos taken by Michael*

**TOTAL DESIGN & CONSTRUCTION TIME: Project Time 19 hours**

**Held -Saturday March 21<sup>st</sup> 2009**



It all started at 6.00am on a dark and gloomy morning – The first job for our enthusiastic volunteers, was to save the marquee from blowing away during the very strong wind gusts and protect our display from the rain. Stallholders also were undeterred, busying themselves setting up for their customers.

The atmosphere however, was great and spirits were high, wet weather gear was handed out - this was still going to be a good day... and a good day it did turn out to be.

The storm passed and out came the sun, plants and flowers looked beautiful and the crowd arrived. Our volunteers were kept very busy collecting proceeds from the stallholders, at the gates, and greeting people at our Display Area.

Julie Peak (TADSA Office Manager) and Susan (Treasurer) had the best job of all – counting out the money!



Our thanks to the ABC for the opportunity to be involved in the 891 ABC Adelaide Car Park Caper which resulted in TADSA raising over \$7,000. This money is very much appreciated and will certainly help us to continue providing our unique service in the community for people with disabilities.

We also very much appreciate the help given by volunteers from the Tea Tree Gully Lodge No. 218, who did a great job manning the barbecue for the day. Hundreds of sausages and egg & bacon rolls were consumed.



Thank you to all the TADSA volunteers and staff who helped make the day so successful. We also appreciate the many offers of assistance from other members who were also very keen to help.

## PUBLIC RELATIONS NEWS

By Ian Beaton, TADSA Public Relations Officer

**891 ABC Adelaide Car Park Caper** The Caper held on March 21<sup>st</sup> was a fantastic day. After a short gale (we nearly lost our tent!) and a shower of rain, the sun came out and so did the people. TADSA received all site fees plus the gold coin donation entry fees and made a profit of \$7,000. A big thank you to all those who helped on the day. Another big thank you to the Holdfast Masonic Lodge which organised the BBQ (including buying and cooking the food) Not only did we raise a significant amount of money, but we also received a lot of publicity during the week leading up to the Caper (on both ABC radio and TV). We also attracted a new technical member and some potential clients.

**National Seniors Australia** We are developing an excellent relationship with National Seniors Australia. I have given a talk to three of their South Australian branches, with more branches to come. The branch at West Lakes has nominated TADSA for a grant from the National Seniors Australia Foundation. Thanks to technical member John Smith who is also a member of this branch for his assistance with the nomination. In March I represented TADSA at a National Seniors members' cocktail party which was hosted by the Foundation's General Manager Mark Furness. Mark mentioned TADSA in his address to those present saying that we were a wonderful organisation and worthy of support. The Foundation will make its decision in May.

**Mount Gambier branch** We are currently investigating the possibility of starting a TADSA branch in Mount Gambier. If readers know of anyone or any organisation that could assist us or could benefit from TADSA setting up in the Mount, please contact me.

**Talks** If you or someone in your family is part of a service club please keep TADSA in mind for speaking opportunities in 2009. I, or someone else from the organisation, would be happy to give a talk on the work of TADSA.

TADSA talks given (February – April 2010)

National Seniors –Adelaide  
Queen Elizabeth Hospital  
National Seniors –Klemzig  
Lions Club of Athelstone

University of South Australia OT students  
Rotary Club of Mawson Lakes  
Arthritis Wellness Group Salisbury  
Kiwanis Club of Athelstone

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### FROM A HAPPY CLIENT

“To Technical Member Randal,

I wanted to say a big ‘thank you’ for the great job you did with my bedrail. It’s absolutely great! Meets my needs perfectly. Again, my sincere thanks for your efforts.”

*(Name withheld for privacy)*

**So what can be done to manage the risk of developing a pressure ulcer? -**

Prevention strategies involve awareness of the risk factors, appropriate regimes and pressure redistributing devices.

**Pressure Redistributing Devices** -One significant way of managing pressure is through the use of pressure redistributing cushions, mattresses, or mattress overlays. In the past the terms 'pressure relieving' and 'pressure reducing' were used to describe these products. However, the current terminology is 'pressure redistributing' that indicates the purpose of the products is to spread or 'redistribute' the pressure over a greater surface area.

Pressure redistribution devices may be either static or dynamic. Static devices usually achieve pressure redistribution via the cushion, mattress or overlay conforming to the user. Dynamic devices use a shifting surface to move pressure from one point to another, for example an alternating mattress overlay. Pressure redistributing devices may be made from many different materials. The following are often used in static devices:

**Foam:** is lightweight, allows some conforming, and is relatively inexpensive. However, it does insulate heat and it does deteriorate, requiring frequent replacement. Viscoelastic or memory foams rebound more slowly when weight is removed and conform better to the user than standard elastic foams. Some mattresses and cushions use a 'cubed' cut to the foam to allow it to conform better and allow increased air flow. Foam can be customised but care must be taken when choosing foam densities to ensure the user does not sink so far into the foam that they touch the surface underneath (called 'bottoming out').

**Gel:** is a semisolid which also allows some conforming, and has some shear reduction properties. It draws heat away from the user, which means that some people find it initially cold to sit or lie on. Gel is quite heavy and may be more expensive than foam.

**Viscous fluids:** have similar properties to gel but are more fluid; therefore, conform much more to the user. Primarily used only in cushions, these devices tend to be more expensive and do pose a risk for punctures. Usually viscous fluids are combined with other materials (such as foam) in order to ensure that the fluid is contained where it is required and that the user does not 'bottom out'. The fluid should also be kneaded back into place before the user sits on it to ensure they do not 'bottom out'.

**Air:** is generally the most conforming medium and products tend to be quite light in weight. Air products do require correct set up and regular monitoring of inflation. They also tend to be more expensive and are at risk of punctures. For users with issues maintaining posture or transferring on/off a surface, air products may provide an unstable surface. In some cases air products are combined with a foam base/surround to provide more stability.

*Next newsletter will include other materials that are emerging as new technologies develop in pressure management and other pressure management strategies*

*Free advice on equipment and techniques to help you with every day tasks -  
Independent Living Centre, 11 Blacks Road Gilles Plains SA 5086  
Phone: 1300 885 886 (SA & NT callers only) or (08) 8266 5260 Fax: (08) 8266 5263  
Email: [ilcsa@ilc.asn.au](mailto:ilcsa@ilc.asn.au) Website: [www.disability.sa.gov.au](http://www.disability.sa.gov.au)*

# DISABILITY GUIDE

## *People with an intellectual disability – Part 1*

### **Description of intellectual disabilities**

There are many definitions used to explain, define and determine an intellectual disability, but each is often limited in providing an accurate representation of this particular disability. An intellectual disability should not be confused with a psychiatric disability or mental illness, although a person with an intellectual disability may also have a psychiatric disability.

Examples of intellectual disability include:

- Down syndrome
- autism
- developmental disability

Examples of psychiatric disability/mental illness include:

- schizophrenia
- anxiety disorders
- bipolar disorder (manic depression)
- anorexia
- post traumatic stress disorder

While definitions of intellectual disabilities may provide some insight into the disability itself, it is important that these definitions do not label the person and that generalised assumptions are not made.

A person with an intellectual disability may also have a print disability, hearing impairment or physical disability.

Intellectual disability (mental retardation) is described by the (DSM-IV) Diagnostic and Statistical Manual of Mental Disorders as the presence of a sub-average general intellectual functioning associated with or resulting in impairments in adaptive behaviour. The onset of this disability occurs before the age of 18.

The level of intellectual disability is classified by intelligence quotient (IQ) scores and ranges from mild to profound. A person with an intellectual disability may:

- have difficulty with both expressive and receptive language (that is both speaking and understanding what is being communicated)
- have a physical disability
- have difficulty in learning and concentrating
- display behaviour that would appear to be inappropriate
- may be unable to read or write
- may be unable to live independently
- may have difficulty in participating in group settings

*There is a high incidence of epilepsy among people with an intellectual disability.*

### **CAUSES AND PREVALENCE**

Causes of intellectual disabilities are many. They include an abnormal number of chromosomes, gene defects, maternal infections, Rh incompatibility, head trauma, anoxia, birth injury, early infant infection and, deprived normal development and growth experiences.

Intellectual disability is twice as common in males as in females. It is estimated that 2.3 percent of the Australian population have some level of intellectual disability. In the state of Victoria it is believed that approximately one percent of the population has some level of intellectual disability, with the Department of Human Services being aware of 60 percent of these people.

## **FUNCTIONAL IMPLICATIONS FOR EVERYDAY LIVING**

The inability to process information and effectively communicate with other people is possibly the most notable implication for every day living. As communicating is often taken for granted by most members of society, people with an intellectual disability can struggle to express their needs.

A deficit in intellectual functioning and associated disabilities can have a significant effect on an individual's education, leisure, employment and social and personal opportunities.

*(Part 2 in next Newsletter)*

## **READING & VIEWING MATTER**

*The following articles and videos are available from the DIRC library. Videos, DVDs (and books etc) can be borrowed from the library. Articles can be photocopied for 10c a page. DIRC contact phone number - Library - 8236 0555*

**New Additions to the DIRC Library-** (as reviewed in DIRC's Current Awareness Service No. 127)

### **WHAT'S COOKING Kitchen Solutions** - *by Ann Glory Jandayan, ILC Vic*

The kitchen is an integral part of the household and the ability to carry out tasks such as meal preparation, cleaning up and the use of different kitchen appliances safely and independently may be compromised due to an illness or disability. Ann Glory of the Independent Living Centre, Victoria has outlined some good practical outlines to help design accessible kitchens. Two Australian Standards act as a reference for planning accessible kitchens and covers Working Space, Storage Units, kitchen Appliances and Waste Disposal.  
INDEPENDENT LIVING, Autumn 2009 (7296)

### **TIPS AND TOOLS FOR GROWING OLDER WITH A DISABILITY –**

*by Dorothy J. Wilson, OTR/L, FAOTA; Nancy Somerville, BS; and Bryan J. Kemp, PhD*

Individuals with a disability may find ageing brings with it changes in function and secondary health problems that threaten their ability to remain as independent as possible. Some tasks may not only take up more energy but also more time, impacting quality of life. This paper offers some very practical advice and strengthens the idea that assistive technology combined with low-cost home adaptations or adaptive behaviour can often produce simple solutions with increased safety for the individual.

PN March 2009 (7312)

### **A MOUNTAIN OF OPPORTUNITY –** *by Josh Pate*

"Where there is a will, there is a way". Josh Pate has cerebral palsy and walks with forearm crutches. He has written this inspirational article about his challenge of learning to ski using a "sit-ski" at Challenge Aspen, a non-profit organisation in Snowmass Village, Colorado, USA. Whilst this method of skiing is called "adaptive skiing," Josh explains that it is in fact the skier who has to adapt. "Every skier is so different that it makes instructors think." His determination is also an inspiration to others on the slope and encourages the attitude, "if at first you don't succeed, try and try again."

ABILITY(7291)