- NEWS AUSTRALIA



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OUR AUSTRALIAN JOURNEY FOR LIFELONG STRFNGTH

It has now been 11 years since we participated in our very first Aged Care conference in Australia. I still remember the first day at our exhibition stand at LASA QLD 2006 conference in Gold Coast. Most of our visitors were surprised to see a fitness

solution provider in the exhibition area, with the following question arising: "What are you doing here, this is aged care?".

Today, 50 senior-related exhibitions later, most people understand.

Consistent positive evidence about the benefits of senior exercise exists, especially with regards to strength and resistance training. HUR has supported numerous research projects around the world; here in Australia we are awaiting the publication of two major studies. The first study concerns falls prevention in a residential aged care setting, whereas the other focuses on the same among community clients. Both studies show the importance of combined balance and strength exercises that, with the right equipment, can safely be performed.

HUR has been actively involved in the 50+ aged market for over 25 years. Based on this experience, we know that age-friendly equipment is just one part of a great 50+ wellness clinic. The other key aspects are trained and motivated staff, and training programs focusing on strength that are monitored and easy to implement. We have packaged our worldwide expertise into our HUR Helsinki Program specially designed for Australian retirement living and aged care. All HUR equipment is manufactured in Finland for the longest life expectancy and with the highest quality requirements.

With baby boomers reaching retirement age, we know the growing need to support seniors living at home. The elderly are also getting more health conscious and are demanding exercise opportunities to enable active living for longer. This trend can be seen in many parts of the world today and is also recognised in Australia.

We currently have almost 100 customers in senior settings in Australia, focusing on 50+ fitness, community centres, retirement living and aged care facilities. We have been blessed to have a chance to work with these fantastic early adopters in the field that are now able to showcase the great benefits for their clients and residents. This is our very first HUR Australia News containing great success stories from down under.

I hope you enjoy reading these articles and I sincerely want to thank all of our great customers, partners and research professionals for supporting us on our journey. ::

Sincerely,

Ari Kallinen, Managing Director, HUR Australia Pty Ltd

An Mile



HUR Australia's Helsinki program is a complete exercise package for elderly, providing a successful setup for a world class wellness program with a full body exercise routine. With the inclusion of physical health, wellness and marketing aspects, the program allows for a successful start-up of a fitness centre. This is based on HUR's 25 years of global expertise with senior strength training.

When discussing the benefits of exercise, some muscle groups have been identified to have a high impact on factors affecting ageing: lower limb strength. upper body strength as well as trunk strength and posture. HUR Helsinki program aims to create a set up that maximises the benefit of training and includes specific training program suggestions for several conditions (eg. Cardiovascular diseases, diabetes, cancer, mobility and balance issues), using a minimum of six pieces of equipment to cater for a full body workout.

Helsinki Program consists of training materials for qualified allied health staff (physiotherapist,

accredited exercise physiologist, occupational therapist), "Train the trainer", with guidance in assessing participant fitness levels, setting up a program of exercise for the participant and monitoring the participant at regular intervals. With HUR program all participants' programs are created using a computer with the participants user card transferring the information to a machine each time they use the equipment. The program is flexible, accessible, fun and supportive.

The Helsinki Program also includes a "Marketing concept" providing marketing material for both within and outside the organisation. With the readymade templates for advertising, pull up banners, mini web page, information brochures and client rewards, starting a successful exercise program is easy.

At its core, the Helsinki Wellness Program is a multi-layered initiative that aims:

• to ensure program and facility staff are amply trained to support clients in program participation,

- to ensure program delivers are appropriate and beneficial for individual independent of their age, disease or disability.
- to support the service provider and village operator in marketing and drawing clients into the program,

By supporting staff, the client and the organisation, the Helsinki Wellness Program overcomes the barriers to participation and promotes a good onsite health culture and encourage residents to lead balanced, productive lives.

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(image from HUR active ageing catalog)

ACTIVE AGEING - IMPROVING QUALITY OF LIFE BY EXERCISE

In 2014 World Health Organization (WHO) identified ageing as a priority issue. Their report on ageing and health (2015) identified three factors that influence trajectories of ability across the life course: the intrinsic capacity of the individual, the environments they inhabit, and the interaction between them. The report gives guidance and a goal for the future: "Healthy ageing is the process of developing and maintaining the functional ability that enables wellbeing in older age".

The benefits of inclusion of exercise at older age are clear; From prevention of falls and improvements cognitive function to reduced mortality, exercise is a key aspect in improving quality of life. Australian Active Ageing Conference (Sydney, 2015) therefore stated: "No time to waste: providers need to embed wellness approaches now".

In June 2016, the World Congress of Active Ageing was held in Melbourne, Australia. Conference chairman, Professor Stuart Biddle, summarized the key points to focus on: 1) Active living is essential to seniors as it is the base for good physical function allowing for better quality of life and longer independent living. 2) Resistance exercise activities are vital to improve physical function 3) Active living is essential for brain health – exercise can help in reducing the risk of developing cognitive decline and related conditions such as dementia (ESSA, 2016).

Both Australian Physiotherapy Association (APA) and Exercise and Sports Science Australia (ESSA) follow the guidelines of the American College of Sports Medicine (ACSM). It is recommended that older people should include at least 30min of daily endurance exercise in bouts of 10 minutes with a total 150 – 300 minutes of weekly activity. Progressive resistance training is recommended at least twice a week including all the major muscle groups. Furthermore, it is recommended to include balance and flexibility exercises.

Bob Barnard has worked as an exercise physiologist over four decades specializing in health and ageing. As the president of Active Ageing Australia (AAA) he has a solid vision for the health and function of older Australians. In an interview in "Activate" magazine published by Exercise and Sports Science Australia (ESSA), Bob stated that currently there are many opportunities for older adults to engage in physical activity with (increasing) community-wide provision of both general and individualised specific activities. When planning active ageing, there are two essential elements to consider: 1) the physical environment and 2) the programs or activities to be provided. Appropriately equipped gyms, indoor and outdoor open spaces, swimming pools, as well as open



spaces with adequate lighting at night to allow safe walking - all need to be provided within minimum set standards. Good exercise modalities must include functional strength training, balance education and training for safe living, support for incidental physical activity such as walking as well as education and support for better nutrition.

Dr. Tim Henwood is an exercise physiologist specialized in Seniors' Exercise Therapy. Tim has a wide research background in resistance training in older adults. With the findings of his clinical research studies, he has been able to implement guidelines for community and residential aged care. An example of this translational research, the "Muscling up against Disability" (MUAD) project was supported by an Australian Government Department of Health grant, and the research was undertaken in partnership with Burnie Brae and Healthy Connections, The University of Queensland, Bond University, HUR Australia and St Vincent's Health Australia. The study included over 240 older adults with a Government supported aged care package, who took part in a twice weekly progressive resistance training program, using HUR equipment, and balance exercises for 24 weeks. The first four weeks of the program were considered a "conditioning phase" starting at two sets of 8 repetitions at 50% of predicted maximum resistance. In the third and fourth week, the intensity was increased to three sets of eight repetitions at 65% of predicted maximum. At the fifth week resistance was increased to 75% with further increases as tolerated by the individuals across the duration of the study.

Whilst detailed analyses of the qualitative, quantitative and cost benefit implications of the study are underway, preliminary results indicate great improvements in physical wellbeing. Specifically, results show:

- increases in isometric leg strength of greater than 32% and
- increases in machine resistance of 230%.

In addition, participants experience improvements in grip strength, balance, walking speed and physical performance. Complimenting this were a number of positive reports of improved mobility and energy, and reduce symptoms of disease and medication needs.

Using a similar resistance training plus balance protocol, Dr Henwood's PhD student, Jennie Hewitt, investigated the effect of exercises on falls rates among older adults living in residential aged care. The SUNBEAM (Strength and Balance in Aged Care), study collected data from 221 residents living in 16 facilities. During the first 6 months, the participants took part in an exercise class lead by an allied health professional, twice weekly, consisting of progressive resistance exercise, using HUR equipment, and

balance exercises. The initial period was followed by a 6 month, non-machine based weight-bearing and functional exercises. After 12 months, those from the exercise group had a 53% reduction in falls occurrence when compared to the control group. In addition, multiple falls risk was also significantly reduced with exercise, leading to a 1.3 versus 2.91 incident risk ratio for exercise versus usual care, respectively.

Both the MUAD and SUNBEAM projects are being investigated currently for the cost-saving capacity to the more traditional models of care in the aged care sector.

Ongoing research and feedback from clinicians in several active ageing settings is very positive. The feedback from clients, practitioners and referring specialists talk about benefits in physical and mental wellbeing, leading to improved quality of life. With an increasing number of exercise facilities, HUR Australia is happy to be part of the Active Ageing movement improving the quality of life on older Australians. ::

UNITING IS LEADING THE WAY IN PROVIDING EXERCISE PROGRAMS FOR OLDER ADULTS WITH MULTIPLE SITES

The ongoing research on the benefits of exercise have allowed us to discover that exercise really is medicine. With the right exercise intensity, number of repetitions and weekly total use, it is possible to prevent and treat chronic diseases, such as diabetes and heart disease, as well as slow down cognitive decline. Research also shows that a key matter in preventing falls is exercise therapy. To get the right benefits from the exercise it is of importance to focus on the exercise prescription skills of the trainers. Many providers are seeing great improvements in the health of their exercise participants in their groups run by qualified allied health staff.

Uniting has gyms for older people running in multiple site in NSW and ACT. Since the beginning of the "Seniors gym" concept 14 years ago, the program has been managed by Nathan Hall, an accredited exercise physiologist. The aim of the service is maintain health, fitness and independence whilst improving quality of life. Nathan has a team of exercise physiologists working at all sites, bringing their professional knowledge around strength and balance programs. With the right assessments, exercise prescription and monitoring, training is safe for everyone, even the frail individuals. The data collected during the program has shown an average 15-30% increase in strength and functional movement. Apart from the physiological changes, the clients often present

with better confidence, wellbeing and mood which enables wellness, independence and quality of life. Nathan states that we have over 900 members accessing our Exercise Physiology programs, whether that is in the Seniors Gym, at home through Home Care Packages, Residential Aged Care or within our community Stay Active Stay Strong exercise programs. HUR equipment has been recently introduced at our new locations in Chatswood and Orange with a plan to have more located in Canberra early next year. The HUR equipment has been a great addition to enhancing progressive resistance training. Member interaction with the smart card system has also decreased time taken to develop client confidence within the gym. ::





HUR HELPS SENIORS AGE WELL WITH UNITING AGEWELL

Enabling people to restore and maintain their health, independence and wellbeing is a core focus of aged care provider Uniting AgeWell.

The not-for-profit organisation, which supports more than 7,000 seniors across Victoria and Tasmania, established a Helsinki University Research (HUR) gym at its day therapy centre in Forest Hill, Melbourne, in 2015.

Since then, the program has flourished, with more than 350 people now using the gym each week and more than 50 taking advantage of the equipment each day. Users include community members, independent living clients and people from the adjoining aged care residence. Local GPs and allied health services are now referring clients to the gym.

The high volume of users is made possible by the Smart Card programming system. This technology enables users to work to a safe, tailored program that can be followed independently, but with constant monitoring and updating by trained allied health staff.

Following the success of the Forest Hill gym, HUR equipment was introduced at Uniting AgeWell's Oakleigh Centre and Noble Park. Forest Hill is also introducing extended opening hours to cater for the growing membership.

Community Programs Manager Ana Mubaslat

says remaining active as people age is an essential ingredient to maintaining physical health and mental wellbeing, and the HUR gym has played an important role in helping seniors do that.

Ana says she wanted to create a gym that addressed the barriers to physical activity among older people and encourage them to regain and maintain their fitness.

"We wanted the HUR gym to be a strong motivator for older people in our local community to become involved in exercise," she said.

"Working in partnership with our customers, we co-design and create innovative service options to ensure their experience of ageing is one of choice, control, independence and wellbeing."

Mima Mitchell is one client who is reaping the benefits of the HUR gym. She was one of the first people to sign up and as a result feels stronger and more agile.

"I am so impressed with the gym. It's a restrained program where you can just do it at your own pace," she says.

"It's all geared to your body by the exercise physiologist, and it's good to have other people around to support each other." ::

Arto Hautala HUR, Director of Research and Education Physical Activity Guidelines Expert appointed by the Finnish Medical Society Duodecim and the Ex-ecutive Board of Current Care



STRENGTH TRAINING AS MEDICINE IN THE INTERNATIONAL GUIDELINES OF DISEASE TREATMENT

The significance of good physical fitness and regular physical exercise to health is undisputed. There is strong scientific evidence to support the benefits and effects of physical exercise in preventing both diseases and their risk factors, as well as in treatment and rehabilitation of diseases. The international disease treatment quidelines confirm that regular exercise plays a significant role in prevention. treat-ment and rehabilitation of long-term illnesses such as hypertension, diabetes, and heart diseases—combined with other life-style changes and medication if needed.

Research has long shown that good physical fitness and regular exercise promote health and reduce risk of premature death. Strength training—alongside endurance training and daily habitual physical activity—is included in the disease treatment guidelines for prevention, treatment and rehabilitation of all abovementioned diseases. For example, a weekly strength training session over 30 minutes in du-ration reduced incidence of coronary heart disease by 23 % compared to participants who did not do strength training at all. Good muscle strength has also been shown to have a

protective effect against heart diseases. A recent study also indicated that regular (≥ 2 times per week) strength training by over 65-year-olds reduced risk of death by 46% compared to those who did not do any strength train-ing. There is also strong evidence of benefits of strength training in the treatment and rehabilitation of coronary heart disease, and one cannot overlook the fact that in addition to health benefits, exercise-based cardiac rehabilitation is cost-efficient as well

Research carried out in Ireland and in Belgium shows interesting findings on the relationship of sen-ior-aged population to smart devices and intelligent technology. The objective of the study was to ex-amine the willingness of heart disease patients aged 62 years on average to use wellness technology as an aid in physical exercise as rehabilitation. 97 % of the patients had a mobile phone and 91 % used the internet. Additionally, 75 % reported being interested in using technology as an aid in rehabilita-tion. A couple of weeks ago, I carried out a similar study in connection with a lecture I presented at an event organized by Oulu Heart Association in Finland and found

the results to be similar. We can, therefore, conclude that using technology is part of everyday life of senior-aged population, too, and using technology in order to increase physical activity and to monitor it on an ongoing basis should be encouraged.

Although benefits of physical exercise surely appeal to us in theory, actually implementing an exercise routine in everyday life of people of all ages requires concrete actions. For example, an individually customized training prescription drafted together with a physiotherapist is a good start for an active life involving regular physical exercise. Clear and safe goal-setting, gradual increase of training load, taking one's own preferences into consideration. and the exercise experience itself as well as follow up-for example in a HUR smart gym environment-provide support when working towards physi-cal activity goals. There will probably be days on which it is challenging to get moving and go to the gym or jogging, but it is worth bearing in mind that, most of the time, at the latest after the training session, a reward awaits in the form of uplifted spirits and new energy which can be felt for a long time. ::



SENIORS REGAINING THEIR INDEPENDENCE AT CHURCHES OF CHRIST CARE BUCKINGHAM GARDENS AGED CARE SERVICES

A 96 year old lady who was told she would never walk again defied the odds when she stood up and walked independently after just a couple of months upon starting an exercise program with HUR machines. Another lady with Alzheimer's started talking again, and an 86 year old gentleman has increased muscle strength by 600 percent after some time in the gym using the HUR exercise equipment. These are some of the success stories from Bucks Gym at Churches of Christ Care's Buckingham Gardens Aged Care Service in Brisbane, Australia.

Beryl Whyte and Aileen Longden are another two familiar faces at Bucks Gym. They have both been part of an 18-month workout program aimed at getting the residents of Buckingham Gardens up on their feet and into an active lifestyle. The two ladies have been going to the gym three to four times a week during this period and are experiencing great results, all the while having fun and enjoying their time spent working out.

"We are inspired by these results", says Churches of Christ Director of Seniors and Supported Living Bryan Mason, who feels the positive effects the gym programs are having on both staff and residents. "The more uplift we can bring to a person, the less they are thinking about the things they can't do and more about the things they can."

"It's quite common after a stroke, sickness or a fall that requires bed rest for a person's muscles to rapidly decline. Our physiotherapists are giving people back their independence by designing specialised exercise programs that work in with this rehabilitation-specific equipment," Mason explains.

Physiotherapist Craig Wilson states that machines that work on air pressure can allow for very small increases in resistance so the residents will experience no muscle pain or fatigue the next day. This is working for people into their late 90s and even some in their 100s. The use of software

to run the programs allows for highly personalised exercise program and enables the staff to keep a very accurate record of the regime and the user's progress. "The exercise program takes them to a level where they can function relatively independently and this direct relates to quality of life," he says.

The success of this program has led to further gym installations at other Churches of Christ Care services. One at Moonah Park, Brisbane, and the other at Bribie Island, both in Queensland. Despite only being at the service for a few weeks, the gym at Moonah Park has seen about 50% of the residents signed up as users and there are even queues of people waiting in the morning for the gym to open. The gym at Bribie Island even has one user that is 106!

The specialised equipment will soon be rolled out at other Churches of Christ Care services.

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PROMOTING HEALTHY AGEING WITH SPECIALISED WELLNESS & CARE PROGRAMS

BallyCara is owned and operated by the Queensland Hibernian Friendly Society (QHFS), a charitable organisation that has been serving the community of Queensland for over 115 years. BallyCara is a provider of residential aged care, home care and retirement living and is forging new frontiers to enable people to live fulfilling lives regardless of age through the provision of individualised care, services, and contemporary community and accommodation infrastructure. Our positive active ageing approach is achieved through our SONA™ (Gaelic for happiness) ethos that ensures we:

- Embrace each individual to genuinely understand their background, skills and passions.
- Enhance their independence and community engagement in practical and motivating ways.
- Inspire each person to maintain control of their life, discover new opportunities and prosper with

real happiness.

In 2013, BallyCara opened a contemporary Wellness Centre at their foundational site at Scarborough, Queensland complete with space for a gym, multipurpose rooms, a co-located Café and adjoining swimming pool. As part of the strategic visioning for BallyCara, the establishment of a Wellness Program pursued after an extensive planning and codesign process. BallyCara realised the benefits of the HUR gym equipment and the alignment with the intent of the Wellness Program - to provide safe, individualised strength-based exercise programs for village residents and the broader seniors community. Today there are approximately 200 active Wellness members who utilise the HUR gym equipment under the supervision of 3 qualified Exercise Physiologists. Paul Johnson, Chief Opportunity Officer with BallyCara said "the senior friendly design of the HUR equipment along with the ability for individualised programming and monitoring have been key

success factors of the Wellness Program". "Many of our members have never set used traditional gym equipment before but love using the HUR, especially with the ongoing support of our BallyCara team" he said. ::





MOBILITY MEANS LONGEVITY RETIREMENT LIVING AT ARCADIA WATERS

Arcadia Group is a retirement village developer from Western Australia. When the managing director, Roger Kwok, was looking for the retirement accommodation for his parents, he wasn't satisfied with what he found and decided that he wanted to create a village that had a feel of a community. This idea was the base for the first Arcadia village in Maddington that opened to its first residents in 2005. The feel of a community is still the case with a friendly and positive atmosphere – once entering the village, all visitors are greeted with smiling residents who warmly welcome you to their home. Since the first village, Arcadia has opened 5 other villages, with similar values.

Roger Kwok is leading his villages with an Active Ageing model. With convincing evidence on the benefits of exercise (e.g. slowed down ageing process, reduced rates of chronic diseases, improved cognition and consequently, improved quality of life) he saw that it was important to include an exercise facility in the village. The first HUR gym, with the accompanying Helsinki program, was installed in Arcadia Waters, Maddington, being the first of its kind in Western Australia.

The official opening of the gym was held in August 2016. During the opening the residents were given lectures about the benefits of strength training and the specific advantages of the pneumatic HUR equipment, and were also invited to try out the gym. The gym was filled with visitors who were keen to see how the gym worked and how the training really worked.

The gym has been well received by the village residents. With their individual wristbands controlling the training settings of the equipment, they can train independently and safely, while the training routines are automatically recorded and thus can be monitored and adjusted per progress.

As Roger Kwok said in the opening, Mobility means Longevity. This sure is the case in Arcadia Waters where the gym is filled with happy trainers, all taking great steps to quality living, even at the older age. ::







Faster and Safer Research and Rehabilitation, and More Independent Exercise with the New **HUR SmartTouch**

The necessity and use of data within exercise and rehabilitation has increased immensely in recent years. HUR recognised this early and a lot of the development has been put into computerized exercise. For over 12 years we have been offering our customers the highly appreciated Smart-Card system for evidence-based exercise within clinics and wellness centres. From that legacy the HUR SmartTouch, a 4th generation of HUR computerized exercise systems, the HUR Smart-Touch, was born.

WHY PUT SO MUCH EFFORT IN COMPUTERIZED EXERCISE AND REHABILITATION?

"The importance of computerized exercise and rehabilitation can't be stressed enough. Different or-

ganisations in our society - from insurance companies to politicians - need evidence-based data regarding the progress of their patients from clinics and wellness centres. This means that professionals need easy-to-use, automated tools for rehabilitation and exercise in order to visualise the wonderful work they are doing.

Furthermore the work needs to be safe and efficient. Rehabilitation times are getting shorter and the staff sizes are decreasing – what happens then to the motivation of the patient? To

meet this reality, we need to provide solutions for faster rehabilitation: independent exercise for all ages and abilities, evidence-based activities and the possibility for patients themselves to track their

own progress easily, which is crucial for the motivation." says Lena Karjaluoto, CEO, HUR.

WHAT DOES THE HUR SMARTTOUCH DO?

The HUR SmartTouch strength training equipment and software brings even more operational benefits for the facility, simplifies the physiotherapist's /instructor's work and provides an enhanced training experience for the users or patients. It is a comprehensive computerized exercise solution with world-leading pneumatic strength training equipment and a modern operating software for research facilities, clinics and well-

ness centres - suitable for users

of all ages and abilities. ::

Balance Assessment Made Easy

The new HUR Labs Balance platform is the perfect tool for performing balance assessments and interactive balance training to improve patient's coordination and reduce their fall risk. Patients regardless of age and skill level can train their balance and coordination independently without the need of constant supervision.

IBALANCE SMART COMBO BENEFITS:

- Easy fall risk level assessment
- Clear results in traffic light colours
- Progress reports for easy follow up
- Independent balance training and games

Top level Research tools help you speed up your time to publish! For scientific users an

IBalance Premium, software adds all analytical features and immediate interpretation you need to help you in your research. It can be combined with the above mentioned iBalance Smart Combo or simply used together with our portable force platforms designed for balance testing. The iBalance Premium boasts additional features like:

- Design Your Own Test Protocols
- General Data Acquisition
- Full Export / Import Capabilities
- Raw force data output
- Extended reports in numbers and graphs

Please see more about our solutions at www.huraustralia.com.au or contact us directly sales@huraustralia.com.au ::





HUR is dedicated to providing the best exercise solutions for preventive, rehabilitative and maintaining training – so that you and your customers can keep on performing miracles every day.

