



Arthritis Appropriate Physical Activity and Self-Management Education Interventions

A Compendium of Implementation Information

*Prepared by the Centers for Disease Control
and Prevention Arthritis Program*

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Introduction

There currently are a number of arthritis appropriate interventions available and it may be challenging to decide which ones are a good fit for your community or organization. The purpose of this compendium is to assist you in selecting interventions by providing a concise, standardized review of each intervention. The Centers for Disease Control and Prevention (CDC) Arthritis Program reviews interventions on the basis of their respective arthritis appropriateness, adequacy of their evidence-based effectiveness and readiness for implementation as a public health intervention.¹ This compendium includes 13 arthritis appropriate interventions for which CDC currently funds dissemination; most meet these criteria fully and a few are considered promising programs because the systems to support their implementation are still being developed. The most current status of each intervention is available on the CDC Arthritis Program Web site at:

<http://www.cdc.gov/arthritis/interventions.htm>.

Intervention reviews are sorted by their focus on physical activity or self-management education and presented in alphabetical order. Information is organized by the following four headings: program description, program requirements, contact information, and evidence-based effectiveness. Available Web sites and organization contacts can be found under the contact information heading.

The interventions reviewed herein include the following:

Physical Activity:

Arthritis Foundation Exercise Program (AFEP)

Active Living Every Day (ALED)

Enhance Fitness® (EF)

Fitness and Exercise Program for People with Arthritis (FEPA) – Promising Program

Fit and Strong! (F&S)

Walk with Ease (WWE – Group)

Walk with Ease (WWE - Self Directed) – Promising Program

¹ Brady TJ, Jernick S, Hootman J, Sniezek JE. Public health interventions for arthritis: expanding the toolbox of evidence-based interventions, *Journal of Women's Health*. 2009;18(12)

Arthritis Foundation Aquatics Program (AFAP)*

*Note: This program meets the CDC Arthritis Program criteria. However, CDC does not fund dissemination of AFAP because significant market penetration has been achieved.

Self-Management Education:

Arthritis Self-Management Program (ASMP)

The Arthritis Toolkit (Spanish: Manejando Mi Artritis) – Promising Program

Better Choices, Better Health[®] for Arthritis (ASMP Internet-Based) – Promising Program

Chronic Disease Self-Management Program (CDSMP)

Programa de Manejo Personal la Artritis (ASMP – Spanish)

Tomando Control de su Salud (CDSMP – Spanish)

Additional interventions will be reviewed by the CDC Arthritis Program as they become available. Four programs being considered for CDC Arthritis Program classifications in the future include:

Active Choices

Better Choices, Better Health[®] (CDSMP Internet-based)

First Step to Active Health

Arthritis Foundation Tai Chi

This compendium is designed to provide a quick snapshot of key information to help with selecting interventions to implement and is not intended to be all-inclusive. After making a selection, more complete information about implementation is available from the intervention distributor at the Web site or contact provided with each review. Any questions about the CDC Arthritis Program review criteria or the strategic approach to dissemination and implementation of these interventions can be answered by contacting the program at 770-488-5464.

Intervention Summary Tables

Physical Activity

Arthritis Foundation Exercise Program (AFEP)

Physical Activity Intervention

Program Description	The Arthritis Foundation Exercise Program (AFEP) is a low-impact recreational exercise program with brief education (formerly known as PACE - People with Arthritis Can Exercise). It is designed for people with arthritis.
Program Outcomes	AFEP is designed to improve functional ability, self-confidence, self-care, mobility, muscle strength and coordination and to reduce fatigue, pain, and stiffness.
Target Audience	People with arthritis (sedentary to relatively active)
Key Activities	Exercise includes joint check/warm up, range of motion/stretching, strengthening, cardio vascular endurance, joint check/cool down and balance and coordination activities. Health education includes up-to-date information about arthritis self-management and exercise. Relaxation and breathing activities are included. Optional activities include weight-bearing, posture/body mechanics, body awareness, and socialization activities.
Setting	Community
Mode of Delivery and Class Size	Small group (15–20 recommended)
Duration and Number of Sessions	One hour long class offered 2–3 times per week for 8–12 weeks or ongoing.
Program Requirements	
Capacity	
Instructor Qualifications	One Arthritis Foundation (AF) certified instructor per class; education or related experience in exercise, fitness, or health-related field required. Must be CPR certified and affiliated with an AF approved facility. Must commit to teaching at least once per year.
Training and Training Source	AF certification includes one day (8 hours) training. Recertification every 3 years required. Training may be cohosted by the partnering organization.
License(s) and License Source	No license required. Must have a facility/organization cosponsor agreement with the Arthritis Foundation.
Physical Space	Community room with sturdy chairs and adequate space for exercise.
Equipment	Weights, resistance exercise bands, balls, music and/or relaxation CDs and exercise mats. All equipment is optional for classes.
Implementation Costs	<ul style="list-style-type: none"> • License: N/A. • Training provided by AF. Contact AF for current registration and other training costs. Fees range from \$125 to \$175. • Instructor guide/materials: AFEP manual is included with training registration fees. • Equipment: One set of equipment for trainer to demonstrate and one set for each trainee. (See the equipment list above.) • Participant materials: Manual \$2.30/person; available in English and Spanish. • Cohosting a training workshop with AF includes training workshop expenses, meeting room rental, LCD projector rental, refreshments and trainer travel/honorarium if appropriate. • Other: Cosponsoring organization should provide adequate liability insurance coverage (at least \$1 million).

Arthritis Foundation Exercise Program (AFEP)

Physical Activity Intervention

Other	Refer to local AF office for current requirements and costs. Marketing materials available.
Quality Assurance	
Monitoring	Periodic site visits to assure program fidelity and training workshop post-tests are recommended.
Data Reporting	Reporting as required by cosponsor agreement with AF including submitting quarterly course statistics using AF forms.
Outcome Evaluation	Optional participant impact outcome questionnaire.
Sustainability	Potential support may be available through participant registration (typically under \$50 per course).
Contact Information	
Developer	Arthritis Foundation
Distributor	Arthritis Foundation
Contact	Local AF office contact information is available at http://www.arthritis.org/chaptermap.php or program information available at: http://www.arthritis.org/exercise.php .
Evidence Base (Selected References)	
	<p>Callahan LF, Mielenz T, Freburger J, Shreffler J, Hootman J, Brady T, et al. A randomized controlled trial of the People with Arthritis Can Exercise Program: symptoms, function, physical activity, and psycho-social outcomes. <i>Arthritis Care & Research</i>. 2008; 59:92–101. Available at http://onlinelibrary.wiley.com/doi/10.1002/art.23239/pdf and at: http://www.cdc.gov/arthritis/interventions/physical_activity.htm.</p> <p>In a randomized control trial, (n = 346), participants who attended at least 50% of the basic 8-week People with Arthritis Can Exercise (PACE) program (now known as AFEP) reported improvements in symptoms, self-efficacy for arthritis management, and upper and lower extremity function. Study also reports a decline in function and self-efficacy for exercise and that achieving sustained improvement for these outcomes may require continued participation in PACE.</p> <p>Minor MA, Prost E, Nigh M, Outcomes from the Arthritis Foundation exercise program: a randomized controlled trial, <i>Arthritis and Rheumatism</i>. . 2007; 56:S309. http://acr.confex.com/acr/2007/Webprogram/Paper7681.html</p> <p>A randomized control trial (n = 174) of PACE after 8-week and 16-week attendance. Participation in PACE 3 days a week for 8 weeks resulted in statistically significant and clinically meaningful improvements in pain, fatigue, function and self-efficacy for managing symptoms. Sixteen weeks of PACE resulted in minimal differences compared with 8 weeks.</p>

Active Living Every Day (ALED) Physical Activity Intervention	
Program Description	Active Living Every Day (ALED) is a step-by-step behavior change program that helps individuals overcome their barriers to physical activity. ALED offers alternatives to more traditional structured exercise programs as all physical activity is done outside of class.
Program Outcomes	ALED is designed to increase physical activity and aerobic fitness, decrease stiffness, and improve blood pressure, blood lipid levels, and body fat.
Target Audience	General population and sedentary people with or without chronic conditions (including people with arthritis); appropriate for older adults.
Key Activities	Class sessions incorporate a short lecture and group discussion as participants learn to set goals, overcome barriers, and find activities they enjoy. Participants choose their own activities and create their own plans based on individual lifestyle and personal preferences, focusing on moderate-intensity activities that can be easily added to one's daily routines. The course text and optional online tools offer structure and support as participants explore their options and begin to realize how enjoyable physical activity can be. As participants work through the course, they learn lifestyle management skills and build on small successes, methods that have proven effective in producing lasting change.
Setting	Community
Mode of Delivery and Class Size	Small group (maximum 20 recommended). Optional online tools are also available.
Duration and Number of Sessions	One hour-long workshop held once per week for 12 or 20 weeks.
Program Requirements	
Capacity	
Leader (Facilitator) Qualifications	One leader (facilitator) per class; no educational or fitness certification required. Must be comfortable with groups and have strong teaching skills.
Training and Training Source	A leader (facilitator) must complete on-line prerequisite course work and an online or in-person training and pass a competency exam from Active Living Partners (ALP). The ALP current training workshop schedule is available at http://www.activeliving.info/TrainingSched.cfm .
License(s) and License Source	A license from Active Living Partners is required to become a provider and to use the ALED name, logo, and materials.
Physical Space	Classroom with adequate seating.
Equipment	Each participant needs a text book; computer access for supplemental tools and support is optional. Each group needs the following: LCD projector and computer, flip chart, markers, pens, sign-in sheet, etc.
Implementation Costs	<ul style="list-style-type: none"> • Licensing: no fee • Training: \$373 per leader (facilitator) includes materials, training, and competency test. • Leader (facilitator) materials included in training fee. • Equipment: LCD projector and computer, flip chart, markers, pens etc. • Participant Materials: each ALED participant package (text and Web link) \$37.95. Bulk order discounts are available. Step counters are also introduced in the

Active Living Every Day (ALED) Physical Activity Intervention	
	program; step counters or pedometers may be purchased from ALP or other vendors.
Other	See Active Living Partners for current pricing.
Quality Assurance	
Monitoring	N/A
Data Reporting	N/A
Outcome Evaluation	Optional
Other	Leader (facilitator) must pass a competency test after completing training.
Sustainability	Programs may consider covering the cost of materials by charging a small participant registration fee.
Contact Information	
Developer	The Cooper Institute: http://www.cooperinstitute.org/education .
Distributor	Active Living Partners – a part of Human Kinetics
Contact	http://www.activeliving.info ; Contact Active Living Partners (ALP) at 800-747-4457 ext. 2522
Evidence Base (Selected References)	
	<p>Dunn AL, Marcus GH, Kampert JB, Garcia ME, Kohl HW, Blaire SN. Comparison of lifestyle and structured interventions to increase physical activity and cardiorespiratory fitness JAMA. 1999; 28(4):327–334. Available at http://jama.ama-assn.org/content/281/4/327.full.</p> <p>In a randomized control trial involving sedentary men (n = 116) and sedentary women (n = 119) intervention effects of lifestyle physical activity and traditional structured exercise groups were compared. Both groups had significant and comparable improvements in physical activity and cardiorespiratory fitness from baseline to 24 months. In previously sedentary adults, a lifestyle physical activity intervention is as effective as a structured exercise program in improving physical activity, cardiorespiratory fitness and blood pressure.</p> <p>Baruth M, Wilcox S, Wegley S, Buchner DM, Ory MG, Phillips A, et.al, Changes in physical functioning in the active living every day program of the active for life initiative. <i>International Journal of Behavioral Medicine</i>. 2010; 18:199–208. Available at http://www.springerlink.com/content/2h743977n4788504/fulltext.pdf.</p> <p>Approximately 100 participants of ALED courses from each of 4 consecutive years were tested pre- and post-attendance. Participants significantly increased their performance in all four physical functioning tests. Physical functioning increased regardless of BMI, race/ethnicity, or baseline impairment status. ALED is an example of an evidence-based physical activity program that can be successfully translated into community programs and result in significant and clinically meaningful improvements in performance-based measures of physical functioning.</p>

Enhance Fitness® (EF)
Physical Activity Intervention

Program Description	Enhance Fitness® (EF) is a multi-component group exercise program originally designed for older adults; exercise revised slightly to be arthritis appropriate. (Formerly known as Lifetime Fitness Program)
Program Outcomes	EF is designed to increase strength, improve flexibility and balance, boost activity levels, and elevate mood.
Target Audience	General population; appropriate for arthritis
Key Activities	5-minute warm-up, 20-minute aerobics workout, 5-minute cool-down, 20-minute strength training, 10-minute stretching workout, balance exercises included throughout.
Setting	Community
Mode of Delivery and Class Size	Small group of 10 to 25 participants
Duration and Number of Sessions	Hour-long classes offered 3 times per week (on ongoing basis).
Other	Participants can join at any time.
Program Requirements	
Capacity	
Instructor Qualifications	One instructor required per class. Nationally recognized Fitness Instructor Certification and CPR certification required (YMCA, ACE or ACSM). Experience working with older adults recommended.
Training & Training Source	1.5 days training by Enhance Fitness® Master Trainer. http://www.projectenhance.org/EnhanceFitness.aspx See YMCA for fitness instructor certification and training information.
License(s) and License Source	License required. See Project Enhance Web site for licensing info: http://www.projectenhance.org/EnhanceFitness.aspx
Physical Space	Non-carpeted (wooden floor recommended) community room w/ adequate space for sitting and standing exercise; should be Americans with Disabilities Act (ADA) accessible.
Equipment	Armless chairs, adjustable resistance soft wrist and ankle weights, CD player, available music. Performance measure equipment includes: stop watch, 5lb. and 8lb. hand-weights, tape measure and “cone” (garbage can or large bottle).
Implementation Costs	<ul style="list-style-type: none"> • Licensing: License fee year 1 includes instructor training and materials: \$3000; \$500 for each program implementation site. Annual renewals: \$50 per 1 site. • Training: Training fee is part of license. Instructor Materials: see Website for more information • On-line data entry fee: \$200 per user per year. • Equipment: 1 time expense estimated at \$800 (2012 approx.) • Participant Materials: N/A
Quality Assurance	
Monitoring	Fitness evaluation by instructor at enrollment, at 4 months and as often as needed thereafter. Site visits to assure program fidelity are recommended
Data Reporting	Enrollment, participation and fitness evaluation data collected and entered into Online Data Entry System (ODES). ODES user fee: \$200 per year.
Outcome Evaluation	Outcomes testing using tracking forms for participant demographics, functional testing, attendance and evaluation. Data entered into ODES.
Sustainability	Programs may consider covering the cost of materials and other direct expenses by charging a small participant registration fee.
Contact Information	
Developer	University Of Washington

Enhance Fitness® (EF)
Physical Activity Intervention

Distributor	Project Enhance® located at Senior Services, Seattle
Contact	http://www.projectenhance.org/
Evidence Base (selected references)	
	<p>Wallace JI, Buchner DM, Grothaus L, Leveille S, Tyll L, LaCroix AZ, Implementation and effectiveness of a community-based health promotion program for older adults. Journal of Gerontology: Medical Sciences 1998, 53a (4):M301-M306. http://www.ncbi.nlm.nih.gov/pubmed/18314570 A randomized control trial (n=100) in which intervention subjects completed a 6-month exercise program. After 6 months the intervention group had significantly better scores on 7 of 8 SF-36 subscales and fewer depressive symptoms than controls. Senior centers may be excellent sites for community-based health promotion interventions: participation and adherence rates may be acceptable, interventions can be designed that are feasible in this setting, and these interventions appear to affect health status positively. The study program improved physical and psycho social functioning and is a promising model for preventing functional decline through activities based at senior centers.</p> <p>Ackermann RT, Williams B, Nguyen HQ, Berke EM, Maciejewski ML, LoGerfo JP, Healthcare cost differences with participation in a community-based group physical activity benefit for Medicare managed care health plan members [abstract], The Journal of The American Geriatrics Society. 2008;56:1459-1465. http://www.ncbi.nlm.nih.gov/pubmed/18637982</p> <p>A retrospective cohort study of 1188 older adult health maintenance organization enrollees who participated at least once in the EF and a matched group of enrollees who never used the program. EF participants had similar total healthcare costs during Year 1 of the program, but during Year 2, adjusted total costs were \$1,186 lower than for non-EF users. Health plan coverage of a preventive physical activity benefit for seniors is a promising strategy to avoid significant healthcare costs in the short term.</p> <p>Basia B, Snyder S, Thompson M, LoGerfo J, From Research to Practice: Enhance Fitness, an Innovative Community-Based Exercise Program, and Topics in Geriatric Rehabilitation. 2010; 26(4):299-309. http://jag.sagepub.com/content/25/4/291.full.pdf+html</p> <p>EF enrolled older adults (mean age 75.5 years) who participated in outcomes testing; improvements were observed at 4 and 8 months on performance (Functional Fitness) tests that measure strength and functional mobility. Participant's self- rating of health improved at 8 months. Study demonstrated that older adults can maintain and/or improve physical function through participation in Enhance Fitness®.</p>

Fitness and Exercise for People with Arthritis (FEPA)

Physical Activity Intervention:

Program Description:	The Fitness and Exercise for People with Arthritis (FEPA) program is a group exercise program designed for individuals with arthritis.
Program Outcomes	FEPA classes are designed to improve range of motion, balance, flexibility, strength and cardiorespiratory endurance while emphasizing joint protection and safety.
Target Audience	Individuals with arthritis. The program may be modified for a variety of age and ability levels.
Key Activities	Group-based exercise activities progressing from low impact range of motion movements (sitting or standing) to standing exercise with resistance and aerobic conditioning.
Setting	Community
Mode of Delivery and Class Size	Small group (15-20) participants
Duration and Number of Sessions	Classes are offered twice per week for 60 minutes each session for 12 weeks.
Program Requirements	
Capacity	
Instructor Qualifications	Instructors must have a fitness certificate or bachelor's degree in kinesiology or another related field and FEPA training.
Training and Training Source	Training conducted by San Diego State University FEPA faculty/personnel.
License(s) and License Source	No licensing fee required
Physical Space	Enough space so participants can stand with arms extended at shoulder level without touching others. Level floor, safe and appropriate for exercise movement.
Equipment	Hand weights, resistance tubing/bands, sit discs, chairs (optional: stability balls, medicine balls)
Implementation Costs	<ul style="list-style-type: none"> • Training: approximately 12 hours instructor training (2-4 instructors), \$1,000 including instructor's manual (plus travel expenses). • Program costs include equipment (see below), instructor training, and instructor salary (if relevant for the specific implementation site). FEPA does not have a licensing fee. • One time equipment costs (these costs are approximate based on online warehouse costs, and may vary by quantity ordered, and site arrangements with suppliers) include: Hand weights (\$1-10 per set), resistance tubing/bands (\$2-5 per set of 3), sit discs (\$20-\$30 each), floor mats (\$20 each), (optional: stability balls (\$20-40 each, medicine balls \$5-20 each) • Instructor Materials: Instructor's Manual (included with training) • Participant Materials: Goal sheets • CD player for exercise music
Quality Assurance:	
Monitoring	Periodic site visits to assure program fidelity are recommended. Instructor and participant evaluations required.
Data Reporting	Optional
Outcome Evaluation	Optional
Other	Instructors complete checklists of class exercises/activity and progress after each class (checklists are a part of the instructor's manual)
Sustainability:	Programs may consider covering the cost of materials by charging a small participant registration fee.
Contact Information	
Developer	Susan S. Levy, Ruby Lopez, Caroline A. Macera, Jeanne F. Nichols
Distributor	San Diego State University

Fitness and Exercise for People with Arthritis (FEPA)

Physical Activity Intervention:

Contact	Susan S. Levy (slevy@mail.sdsu.edu) or 619-594-5672
Evidence Base (Selected References)	
	<p>Evaluation of a multi-component group exercise program for adults with Arthritis: Fitness and Exercise for People with Arthritis (FEPA) Disability and Health Journal (in review)</p> <p>Levy, S.S., Macera, C.A., Lopez, R., Hootman, J., Nichols, J.F., Marshall, S.J., Ji, M. (March 2008). <i>Effects of an exercise program on arthritis-specific outcomes: Fitness and Exercise for People with Arthritis FEPA</i>. Paper presented at the Society of Behavioral Medicine Annual Meeting; San Diego, CA.</p>

Fit and Strong! (F&S) Physical Activity Intervention	
Program Description	Fit and Strong! (F&S) is a multi-component program that combines flexibility, strength training and aerobic walking with health education for sustained behavior change among persons with osteoarthritis (OA).
Program Outcomes	F&S is designed to improve exercise frequency in order to reduce pain and stiffness, increase strength and self-efficacy for exercise.
Target Audience	Older adults with OA; appropriate for people with co-morbidities.
Key Activities	Exercise (60 minutes) and health education for OA management (30 minutes).
Setting	Community
Mode of Delivery and Class Size	Small group (20–25) participants
Duration and Number of Sessions	Classes offered 3 times per week for 90 minutes each for 8 weeks.
Program Requirements	
Capacity	
Instructor Qualifications	The instructor must be a certified exercise instructor (CEI) or a licensed physical therapist (PT) or an Occupational Therapist (OT) or a student under supervision of licensed PT or OT. Qualified instructors of other arthritis programs and Matter of Balance trainers can also be trained as a Fit and Strong! Instructor.
Training and Training Source	One day (8 hours) F&S certification training taught by an F&S master trainer is required. Information at http://www.fitandstrong.org/instructors/training_certification.html
License(s) and License Source	License required (see Implementation Costs below for specific information).
Physical Space	<ul style="list-style-type: none"> • Large, open, unobstructed area for walking (perimeter of room, long hallways, outdoor space if weather permits). • Room for chair placement for each participant. Participants should be able to stand and comfortably extend both arms laterally. • Storage space for equipment.
Equipment	Elastic exercise bands, 10 lb. ankle weights, chairs, floor mats, CD or tape player and participant manuals.
Implementation Costs	<ul style="list-style-type: none"> • Licensing: First year fee for a system's main site \$2,000 and \$400 for each satellite site. Stand-alone site license costs \$1,000 if only offered at one site. Renewal license required after 1st year for main site or stand-alone site \$200. Each satellite site renewal fee \$100. • Training: included in the licensing fee. Transportation costs for trainers are additional. • Instructor: If you do not have a certified exercise instructor on staff, consider partnering with the YMCA or YWCA, local gyms, or parks and recreation departments who might be interested in sharing an instructor with you. If you need to hire a certified exercise instructor, note that the hourly rate for instructors varies by region. The following links to calculate hourly rates by region are available at American Council on Exercise, US Department of Labor, Bureau of Labor Statistics, and Occupational Outlook Handbook. • Equipment: for a class of 20 approximate cost: \$1,985 (one time only). Equipment can be reused in subsequent classes.

Fit and Strong! (F&S) Physical Activity Intervention	
	<ul style="list-style-type: none"> Participant Materials: Manual \$30 each and included in cost of equipment above.
Quality Assurance	
Monitoring	Periodic site visits to assure program fidelity are recommended.
Data Reporting	Attendance data must be submitted to F&S.
Outcome Evaluation	Mandatory
Other	Participants complete physical activity contracts before end of 8 week course.
Sustainability	Programs may seek to cover expenses through participant registration fees. Instructors may be shared with YMCA etc.
Contact Information	
Developer	University of Illinois Chicago
Distributor	Center for Research on Health and Aging, University of Illinois at Chicago
Contact	Fitandstronguic@gmail.com ; Phone: (312) 413-9810, toll free (866) 750-8731 http://www.fitandstrong.org
Evidence Base (Selected References)	
	<p>Hughes S, Seymour RB, Campbell R, Huber G, Pollack N, Sharma L, et al. Osteoarthritis long-term impact of Fit and Strong! on older adults with osteoarthritis, <i>The Gerontological Society of America</i>. 2006; 46(6):801–814. Available at http://gerontologist.oxfordjournals.org/content/46/6/801.full.pdf+html.</p> <p>Findings at 2 and 6 months from the final, larger sample tested in this randomized trial (n = 215) agree substantially with those described in our preliminary 2- and 6-month study. Both analyses found significant effects of Fit and Strong! at 2 and 6 months on self-efficacy for exercise and maintenance of physical activity that were accompanied by significantly decreased lower extremity stiffness. In both analyses, participants at 6 months also experienced a significant reduction in pain. Whereas the earlier analyses found a marginally significant improvement in self-efficacy to adhere to exercise over time, the final analyses with a larger sample found a significant difference on this outcome. Finally, the new 12-month analyses on the basis of a reduced number of participants, found continued benefits of the program on self-efficacy for exercise, self-efficacy to continue to adhere to exercise over time, maintenance of physical activity, and borderline significant reductions in lower extremity stiffness and pain.</p> <p>Hughes, S.L., Seymour, R.B., Campbell, R.T., Huber, G., Desai, P., Chang, J.H. Fit and Strong!: Bolstering maintenance to physical activity among older adults with lower-extremity osteoarthritis. <i>American Journal of Health Behavior</i>, 2010; 34; 6: 750-763. Available at http://png.publisher.ingentaconnect.com/content/png/ajhb/2010/00000034/00000006/art00010. Single group random effects analyses showed significant improvements at 2, 6, 12, and 18 months on PA maintenance, lower-extremity (LE) pain and stiffness, LE function, sit-stand, 6-minute distance walk, and anxiety/depression.</p>

Walk with Ease (WWE) - Group Physical Activity Intervention	
Program Description	Walk with Ease (WWE) is a group program that combines self-paced group walks with discussions about health related topics.
Program Outcomes	WWE is designed to decrease disability and improve arthritis symptoms, self-efficacy, perceived control, balance, strength, and walking pace.
Target Audience	People with arthritis; appropriate for others including older adults.
Key Activities	Group participants walk at self-selected speed and distance. Group education about arthritis and behaviors includes information on group walking, safe walking, exercising safely and comfortably and sustaining physical activity by using a personal plan.
Setting	Community
Mode of Delivery and Class Size	Small group (12–15 participants per leader recommended) facilitated by a group leader. Groups may have more than one leader.
Duration and Number of Sessions	60 minutes sessions three times per week for 6 weeks. Each session includes pre- and post-walk discussions, warm up and cool down exercises and a 10-40 minute walk.
Program Requirements	
Capacity:	
Leader Qualifications	Arthritis Foundation (AF) WWE program leader certification required. Certification in CPR required. First aid certification recommended.
Training and Training Source	Two options: In-person 3–4 hour workshop or online training module available from AF.
License(s) and License Source	License not required. However, a signed AF program cosponsorship agreement form, documenting organization’s understanding of responsibilities and liability insurance is required.
Physical Space	A safe and accessible place to walk either inside, e.g., indoor track, gymnasium, mall or outside, e.g., neighborhood, walking trail.
Equipment	Walking shoes and Walk With Ease Guidebook
Implementation Costs	<ul style="list-style-type: none"> • Licensing: N/A. • Training: Online training workshop registration fee: \$50 including materials. Cohosting an in-person training workshop with the AF includes in-person training workshop expenses, e.g., meeting room rental, LCD projector rental, refreshments, trainer travel/ honorarium (if appropriate). • Leader Materials: Walk With Ease Leader’s Guide, WWE Guidebook and posters (Also available in Spanish.) • Participant Materials: Walk With Ease participant guidebooks (English and Spanish): \$11.95 each. • Cosponsoring agency should have adequate general liability insurance (industry standard is \$1 million).
Quality Assurance	
Monitoring	Site visits to assure program fidelity are recommended.
Data Reporting	Group Classes: Participant release forms, program information form, new enrollees reported to AF.
Outcome Evaluation	Optional
Other	AF participant release form provides liability protection for trained leaders with a

Walk with Ease (WWE) - Group Physical Activity Intervention	
	program cosponsor agreement. Marketing/ Media Kit available in English and Spanish.
Sustainability	Programs may consider covering the cost of materials by charging a small participant registration fee. Establishing a lending library for WWE Guide books is another option.
Contact Information	
Developer	Arthritis Foundation
Distributor	Arthritis Foundation
Contact	Program information: http://www.arthritis.org/walk-with-ease.php . And http://www.arthritis.org/wwe . Local AF office information: http://www.arthritis.org/chaptermap.php
Evidence Base (Selected References)	
	<p>Callahan LF, Shreffler JH, Altpeter M, Schoster B, Hootman J, Houenou LO, et al. Evaluation of group and self-directed formats of the Arthritis Foundation's Walk With Ease Program. <i>Arthritis Care & Research</i>. 2011; 63(8):1098–1107.</p> <p>Available at http://onlinelibrary.wiley.com/doi/10.1002/acr.20490/full.</p> <p>Observational pre-and post-study n = 462) of subjects with self-reported arthritis. Group or self-directed WWE formats were studied. Performance and self-reported outcomes were assessed at baseline and at 6 weeks. Self-reported outcomes were assessed at 1 year. The revised WWE program decreases disability and improves arthritis symptoms, self-efficacy, and perceived control, balance, strength and walking pace in individuals with arthritis, regardless of whether they are taking a group class or doing the program as self-directed walkers. At 1 year, some benefits are maintained, particularly among the self-directed. This is a safe, easy, and inexpensive program to promote community-based physical activity.</p>

Walk with Ease (WWE) - Self-Directed Physical Activity Intervention	
Program Description	Walk with Ease (WWE): Self-Directed is a self-directed individual walking program.
Program Outcomes	WWE self-directed is designed to decrease disability and improve arthritis symptoms, self-efficacy, perceived control, balance, strength, and walking pace.
Target Audience	People with arthritis; appropriate for others including older adults.
Key Activities	Individuals use a guidebook to learn about arthritis precautions and safety. The following tools are located in the guidebook: a contract walking log and starting point and ending point tests. Participants walk on their own at self-selected walking speed and distance.
Setting	Individual
Mode of Delivery and Class Size	Individual
Duration and Number of Sessions	Three times per week working up to at least 30 minutes per session for 6 weeks.
Program Requirements	
Capacity	
Physical Space	Safe places to walk (indoor or outdoor).
Equipment	WWE guidebook (English or Spanish versions) and walking shoes.
Implementation Costs	A WWE guidebook, used to assure fidelity to the program, is \$11.95 from the Arthritis Foundation; individual purchases walking shoes as needed.
Quality Assurance	
Monitoring	
Data Reporting	
Outcome Evaluation	Optional
Sustainability	Participants pay for program materials.
Contact Information	
Developer	Arthritis Foundation
Distributor	Arthritis Foundation
Contact	Program information available at: http://www.arthritis.org/walk-with-ease.php and http://www.arthritis.org/wwe
Evidence Base (Selected References)	
	Callahan LF, Shreffler JH, Altpeter M, Schoster B, Hootman J, Houenou LO, et al. Evaluation of group and self-directed formats of the Arthritis Foundation's Walk With Ease Program. <i>Arthritis Care & Research</i> . 2011; 63(8):1098–1107. Available at http://onlinelibrary.wiley.com/doi/10.1002/acr.20490/full Observational pre- and post-study (n = 462) of subjects with self-reported arthritis. Group or self-directed WWE formats were studied. Performance and self-reported outcomes were assessed at baseline and at 6 weeks. Self-reported outcomes were assessed at 1 year. The revised WWE program decreases disability and improves arthritis symptoms, self-efficacy, and perceived control, balance, strength, and walking pace in individuals with arthritis, regardless of whether they are taking a group class or doing the program as self-directed walkers. At 1 year, some benefits are maintained, particularly among the self-directed. This is a safe, easy, and inexpensive program to promote community-based physical activity.

Arthritis Foundation Aquatic Program (AFAP)*

Physical Activity Intervention

*Meets CDC Arthritis Program criteria; however, dissemination of this program is not funded by CDC because significant market penetration has been achieved.

Program Description	The Arthritis Foundation Aquatic Program (AFAP) is a recreational group water exercise program designed for people with arthritis.
Program Outcomes	AFAP is designed to improve functional ability, self confidence, self-care, mobility, muscle strength and coordination and to reduce fatigue, pain, and stiffness.
Target Audience	People with arthritis; appropriate for older people.
Key Activities	Exercises in water that may include joint range of motion, muscle strengthening with optional equipment, socialization activities and an optional moderate intensity endurance component.
Setting	Community
Mode of Delivery and Class Size	Small group (20 recommended).
Duration and Number of Sessions	Classes offered 2–3 times per week for one hour each for 6–10 weeks duration or ongoing.
Other	Swimming ability is not required to participate.
Program Requirements	
Capacity	
Instructor Qualifications	One Arthritis Foundation (AF) certified instructor per class. Must have CPR certification and be able to swim. Must have lifeguard or water safety certification and be affiliated with an AF approved facility. Must be willing to commit to teaching at least one class series per year.
Training and Training Source	AF certification including 1-day (8 hours) training. Training provided by AF. Recertification every 3 years required. Training may be hosted by partnering organization. Water safety or life guard instruction may be available from YMCA.
License(s) and License Source	No license required. Must have a facility/organization cosponsor agreement with AF.
Physical Space	Warm (83–90 degree) swimming pool, water depth at shoulder level; must meet state pool safety requirements. Pools with temperature over 90 degrees (91-94) must sign a waiver.
Equipment	Exercise equipment is optional. Approved supportive equipment includes: flotation belts or vests that attach to the body for deep water, kickboards, noodles and noodle bars in shallow water. Approved resistance equipment includes: Webbed gloves, upper body trainers and paddles with open/close vanes.
Implementation Costs	<ul style="list-style-type: none"> • License: N/A. • Training: \$125-\$175 per instructor (2011 approximate). • Cohosting a training workshop with the AF includes training workshop expenses: meeting room rental, LCD projector rental, refreshment, trainer travel/honorarium if appropriate. • Instructor Guide/Materials: Instructor manual included in training costs. • Equipment: Refer to instructor manual for retailers. • Participant materials: N/A.
Other	Refer to local AF office for current requirements and costs
Quality Assurance	
Monitoring	Instructors use a standardized program curriculum with approved content and process per AFAP. Periodic site visits are recommended.
Data Reporting	Reporting as required by cosponsor agreement with AF including submitting quarterly course statistics using AF forms.

Arthritis Foundation Aquatic Program (AFAP)*

Physical Activity Intervention

*Meets CDC Arthritis Program criteria; however, dissemination of this program is not funded by CDC because significant market penetration has been achieved.

Outcome Evaluation	Optional per local AF office requirements.
Other	Cosponsor agreement needed. Marketing materials available.
Sustainability	Programs may consider covering the cost of materials by charging a small participant registration fee. Typical registration fee is \$50 or less.
Contact Information	
Developer	Arthritis Foundation and YMCA of USA
Distributor	Arthritis Foundation
Contact	Program information is available at: http://www.arthritis.org/aquatics.php . Local AF office information is available at http://www.arthritis.org/chaptermap.php
Evidence Base (Selected References)	
	<p>Patrick DL, Ramsey SD, Spencer AC, Kinne S, Belza B, Topolski, T. Economic evaluation of aquatic exercise for persons with osteoarthritis. <i>Medical Care</i>. 2001; 39(5):413–424. Available at http://www.jstor.org/pss/3768112.</p> <p>Randomized Control Trial (RCT): RCT of 12-week program: significant improvements in flexibility, strength and aerobic fitness (n = 249) for people aged 59 to 75 years with a doctor-confirmed diagnosis of osteoarthritis.</p> <p>Wang T, Belza B, Thompson FE, Whitney JD, Bennett K, Effects of aquatic exercise on flexibility, strength, and aerobic fitness in adults with osteoarthritis of the hip or knee. <i>Journal of Advanced Nursing</i> 2007; 57(2):141–152. Available at http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2648.2006.04102.x/pdf.</p> <p>RCT of a 20-week program (n = 250), improvements reported in function and perceived physical quality of life. There were more positive outcomes when more than two classes were attended, but did not find increased improvements in self-reported function and pain.</p>

***Self-Management
Education***

Arthritis Self-Management Program (ASMP)

Self-Management Education Intervention

Program Description	The Arthritis Self-Management Program (ASMP) is an interactive workshop for people with arthritis that is focused on chronic disease management skills including decision making, problem-solving and action-planning. (Formerly known as Arthritis Foundation Self-Help Program or the Arthritis Self Help Course.)
Program Outcomes	ASMP is designed to increase self-confidence, physical and psychosocial well-being and motivation to manage chronic arthritis challenges.
Target Audience	People with arthritis; appropriate for older adults.
Key Activities	Interactive education including discussion, brain storming, and practice of action-planning and feedback, behavior modeling, problem-solving techniques and decision making. Symptom management includes exercise, relaxation, communication, healthy eating, medication management and managing fatigue.
Setting	Community
Mode of Delivery and Class Size	Interactive small group recommended workshop size: 10–16 participants.
Duration and Number of Sessions	2–2½ hour workshops offered once per week for 6 weeks.
Program Requirements	
Capacity	
Leader Qualifications	Each workshop requires a pair of trained leaders. Leaders may include either two lay (peer) leaders or one health professional and one peer leader. One of the peer leaders should have a chronic condition.
Leader Training/Training Source	Leaders must first complete CDSMP leader training, a 4½-day training provided by CDSMP-certified master trainers (widely available in the U.S.). Following CDSMP training, leaders must complete a ½ day ASMP specific Webinar offered by Stanford University.
License(s) and License Source	License must be purchased from Stanford University before the start of the program. License must be renewed every 3 years. License can be purchased specifically to offer ASMP as a single program license, or ASMP can be licensed through a multiple program license along with CDSMP and other Stanford Patient Education Research Center Programs. Information about current Stanford license fees is available at http://patienteducation.stanford.edu/licensing/ .
Physical Space	Community room that is Americans with Disability Act (ADA) accessible with enough space for leaders, participants, flip charts, white board, and comfortable chairs.
Equipment	Flip charts, markers, and a CD player.
Implementation Costs	<ul style="list-style-type: none"> • Licensing: Single Program License: \$500 for offering 10 or fewer workshops/year; \$1,000 for offering 30 or fewer workshops per year. Offering more than 30 workshops per year must be negotiated with Stanford University Office of Technology Licensing. Multiple Program License: \$1,000 for offering up to 25 workshops per year; \$1,500 for offering up to 40 workshops per year. • Training: Leaders must complete CDSMP training as prerequisite to being trained in ASMP: <ul style="list-style-type: none"> ○ ASMP specific follow up training via Webinar: \$350 per leader. CDSMP Training Options include— <ul style="list-style-type: none"> ○ Send leaders to training held locally and hosted by another organization (costs vary). ○ Send leaders to training offered at Stanford. Registration fees for training are \$1,600 for each health professional, and \$900 for a lay person with a chronic disease. ○ Host a leader-training by using local master trainers (costs vary), or bring Stanford master trainers to your location: \$16,000 plus travel costs for trainer for training up to 26 leaders per course. Available at: http://patienteducation.stanford.edu/training/. • Leader Materials: Leader manual is provided with license and may be reproduced.

Arthritis Self-Management Program (ASMP) Self-Management Education Intervention	
	<ul style="list-style-type: none"> • Equipment: Flipchart, flipchart stand, and other training-related equipment. • Participant Materials: The <i>Arthritis Helpbook</i> is available for \$18.95 from a local book store. Price may be less if purchased in bulk
Quality Assurance	
Monitoring	Site visits are recommended to assure fidelity to ASMP.
Data Reporting	Every licensed organization must submit a yearly report to Stanford that includes the number of workshops offered, dates of each workshop and the number of participants. If applicable, the number of leader trainings or master trainer trainings conducted is identified.
Outcome Evaluation	Optional
Sustainability	Programs may consider covering the cost of materials by charging a small participant registration fee. Establishing a lending library of participant books is another option.
Contact Information	
Developer	Stanford University Patient Education Research Center.
Distributor	Stanford University Patient Education Research Center.
Contact	Stanford: Contact Frank Villa or Gloria Samuel at 1-800-366-2624 or self-management@stanford.edu .
Evidence Base (Selected References)	
	<p>Lorig K, Lubeck D, Kraines RG, Seleznick M, Holman HR. Outcomes of self-help education for patients with arthritis [abstract]. <i>Arthritis and Rheumatism</i> 1985; 28(6):680-685. Epub 2005. Available at http://onlinelibrary.wiley.com/doi/10.1002/art.1780280612/abstract. Behavioral and health status outcomes of an unreinforced, self-help education program for arthritis patients taught by lay persons were examined in 2 ways: a 4-month randomized experiment and a 20-month longitudinal study. At 4 months, experimental subjects significantly exceeded control subjects in knowledge, recommended behaviors, and in lessened pain. These changes remained significant at 20 months. The course was inexpensive and well-accepted by patients, physicians, and other health professionals.</p> <p>Goeppinger J, Armstrong B, Schwartz T, Ensley, D, Brady T. Self-management education for persons with arthritis: managing co-morbidities and eliminating health disparities. <i>Arthritis and Rheumatism</i>. 2007; 57(6):1081–1088. Available at http://www3.interscience.wiley.com/cgi-bin/fulltext/114297542/PDFSTART. The study compared short-term and long-term effectiveness of the Arthritis Self-Help Course (ASHC) and the Chronic Disease Self-Management Program (CDSMP) for persons with arthritis concerning health care use, health-related quality of life, health behaviors, and arthritis self-efficacy. At 4 months all ASHC participants including African Americans, had significant improvements in self-efficacy, stretching and strengthening exercises, aerobic exercises, and general health. Significant results at 1 year within and between programs were minimal for both groups. When populations with arthritis and multiple comorbid conditions are targeted, the CDSMP may be most cost effective.</p> <p>Brady T, Murphy L, Beauchesne D, Bhalakia A, Chervin D, Daniels B, et.al. [Internet] Sorting Through the Evidence for the Arthritis Self-Management Program and the Chronic Disease Self-Management Program (Report), Executive Summary of ASMP/CDSMP Meta-Analysis; May, 2011. Available at http://www.cdc.gov/arthritis/docs/ASMP-executive-summary.pdf. This study provided a quantitative synthesis of patterns across empirical studies to determine the effectiveness of ASMP on health status, health behaviors, and health care use in both short- and long-term follow-up. These meta-analyses used data from 24 studies of ASMP and 23 studies of CDSMP. The findings suggested that ASMP and CDSMP contribute to improvements in psychological health status, self-efficacy, and select health behaviors and that many of those improvements are maintained over 12 months. While the effects are modest, they have great public health significance when the cumulative impact of small changes across a large population is considered. Furthermore, if sustained, these shifts may have a substantial effect on health-related quality of life and the physical, psychological, and psychosocial impact of chronic health conditions.</p>

The Arthritis Toolkit Self-Management Education Intervention	
Program Description	The Arthritis Toolkit is a self-study package of print and electronic media based on content from the Arthritis Self-Management Program (ASMP) for people with arthritis. It is focused on chronic disease management skills including decision making, problem-solving, and action-planning. (Available in Spanish as Manejando Mi Artritis.)
Program Outcomes	The Arthritis Toolkit is designed to guide people to increase self-confidence, physical, and psychosocial well-being and motivation to manage chronic disease challenges.
Target Audience	People with arthritis; appropriate for older adults.
Key Activities	Self-assessment is used by the individual to tailor learning to individual needs, and to foster the practice of action-planning, problem-solving and decision making.
Setting	Individual
Mode of Delivery and Class Size	Individual self-study package includes <i>The Arthritis Help Book</i> , information sheets and relaxation and exercise CDs.
Duration and Number of Sessions	Self-paced
Program Requirements	
Capacity	
Leader Qualifications	N/A
Training/Training Source	N/A
License(s) and License Source	N/A
Physical Space	Space within the home for exercise
Equipment	The Arthritis Toolkit and Manejando Mi Artritis (The Arthritis Toolkit Spanish edition) may be ordered directly from Bull Publishing: https://www.bullpub.com/
Implementation Costs	Toolkit costs \$43.96 on-line plus shipping and handling. Bulk discounts are available.
Quality Assurance	
Monitoring	N/A
Data Reporting	N/A
Outcome Evaluation	
Sustainability	Programs may cover expenses by charging for participant materials or purchasing Toolkits and making them available through a lending library.
Contact Information	
Developer	Stanford University Patient Education Research Center and the University of North Carolina School of Nursing.
Distributor	Bull Publishing Company: https://www.bullpub.com/
Contact	
Evidence Base (Selected References)	
	Goepfing J, Lorig KR, Ritter PL, Mutatkar S, Villa F, Gizlice Z. Mail-delivered arthritis self-management tool kit: a randomized trial and longitudinal follow-up. <i>Arthritis and Rheumatism</i> . 2009; 15; 61(7):867–875. Available at http://onlinelibrary.wiley.com/doi/10.1002/art.24587/pdf The purpose of this study was to determine the effectiveness of an intervention tool kit of arthritis self-management materials to be sent once through the mail, and to describe the populations reached. Spanish speakers (n = 335), non-Hispanic English-speaking African Americans (n = 156), and other non-Hispanic English speakers (n = 404) were recruited separately and randomized within each of the 3 ethnic/racial categories to immediately

The Arthritis Toolkit
Self-Management Education Intervention

receive the intervention Tool Kit (n = 458) or to a 4-month wait-list control status (n = 463). At 4 months, there were significant benefits in all outcomes except medical care use and self-rated health. The results were maintained at 9 months compared with baseline. On average, the tool kit reached persons aged 50–56 years with 12–15 years of schooling. There were few differences between English- and Spanish-language participants in either the effectiveness or reach variables. A mailed Arthritis Self-Management Tool Kit proved effective in improving health status, health behavior, and self-efficacy variables for up to 9 months. It also reached younger persons in both English- and Spanish-language groups and Spanish speakers with higher education levels than previous studies of the small-group Arthritis Self-Management Program.

Better Choices, Better Health[®] for Arthritis (BCBH for Arthritis)
Internet-Based Group Arthritis Self-Management Program
 Self-Management Education Intervention

Program Description	Better Choices, Better Health [®] for Arthritis (BCBH for Arthritis) is an internet-based group workshop using the content from the Arthritis Self-Management Program (ASMP) that focuses on arthritis management skills including decision making, problem-solving and action-planning. This has also been known as “Healthy Living with Arthritis.” The National Council on Aging (NCOA) and the Arthritis Foundation (AF) are collaborating to provide the BCBH for Arthritis intervention. Program dissemination is currently in a pilot test phase.
Program Outcomes	BCBH for Arthritis is designed to increase self-confidence, physical, and psychosocial well-being and motivation to manage arthritis challenges.
Target Audience	People with arthritis ; appropriate for older adults.
Key Activities	The subject matter of the online version is much like the in-person ASMP workshop. The same skills for action planning, problem solving, brainstorming, relaxation techniques, etc. are taught. However, unlike the in-person workshops, the online program does not require a scheduled time commitment. Participants choose when to participate from week to week. Participants interact through message boards. Each week they set action plans and then report on how well they did the following week.
Setting	Individual – home-based
Mode of Delivery and Class Size	Individual participates in a group Internet-based course; recommended class size is 20–25 although participants do not need to be online at the same time.
Duration and Number of Sessions	Participants are expected to log-on at their convenience approximately 2–3 times per week during a designated 6-week period. Participants may review previous sessions but may not move ahead of scheduled sessions.
Program Requirements	The Arthritis Foundation, in collaboration with the National Council on Aging (NCOA), is currently conducting a pilot test of BCBH for Arthritis dissemination through a cooperative agreement with the CDC Arthritis Program. Organizations may contact the AF for more information.
Capacity	
Facilitator Qualifications	Two trained peer facilitators are required for each 6-week workshop (at least one who has a chronic condition).
Training/Training Source	Trainers are currently provided by AF and NCOA.
License(s) and License Source	The NCOA is licensed to provide the online workshop. Currently, The Arthritis Foundation (AF) hosts the program. Information on the AF Web site is available at http://www.arthritis.org/ . http://www.ncoa.org/improve-health/chronic-conditions/better-choices-better-health.html
Physical Space	Individual space in home
Equipment	Individual computer with internet access
Implementation Costs	Costs for pilot test activities are covered by the AF at this time.
Other	Activities at the organization level currently include marketing BCBH for Arthritis and recruiting participants. Potential participants are referred to AF to enroll in workshops.
Quality Assurance	
Monitoring	
Data Reporting	
Outcome Evaluation	
Sustainability	
Contact Information	
Developer	Stanford University Patient Education Research Center.

Better Choices, Better Health[®] for Arthritis (BCBH for Arthritis)
Internet-Based Group Arthritis Self-Management Program
 Self-Management Education Intervention

Distributor	National Council on Aging (NCOA).
Contact	Annie Parr at aparr@arthritis.org .
Evidence Base (Selected References)	
	<p>Lorig KR, Ritter PL, Laurent D, Plant K. The internet-based arthritis self-management program: A one-year randomized trial for patients with arthritis or fibromyalgia. <i>Arthritis & Rheumatism (Arthritis Care & Research)</i>. 2008; 1559(7):1009–1017. Available at Research - Patient Education - Department of Medicine - Stanford University School of Medicine.</p> <p>At 1 year, the intervention group significantly improved in 4 of 6 health status measures and self-efficacy. No significant differences in health behaviors or health care use were found. The Internet-based ASMP proved effective in improving health status measures at 1 year and is a viable alternative to the small-group ASMP.</p>

Chronic Disease Self-Management Program (CDSMP)

Self-Management Education Intervention

Program Description	The Chronic Disease Self-Management Program (CDSMP) is an interactive workshop for people with one or more chronic health conditions (e.g., arthritis, diabetes, heart disease, depression or lung disease) that focuses on chronic disease management skills including decision making, problem-solving and action-planning.
Program Outcomes	Designed to increase self-confidence, physical, and psychosocial well-being and motivation to manage chronic disease challenges.
Target Audience	People with one or more chronic health conditions including those with arthritis; appropriate for older adults.
Key Activities	Interactive education includes discussion, brain storming, and practice of action-planning and feedback, behavior modeling, problem-solving techniques and decision making. Symptom management includes exercise, relaxation, communication, healthy eating, medication management and managing fatigue.
Setting	Community
Mode of Delivery and Class Size	Interactive small group with a recommended workshop size: 10–16 participants.
Duration and Number of Sessions	2–2½-hour workshops offered once per week for 6 weeks.
Program Requirements	
Capacity	
Leader Qualifications	Each workshop requires a pair of trained leaders. Leaders may include either two lay (peer) leaders or one health professional and one peer leader. One of the peer leaders should have a chronic condition.
Training and Training Source	Leader training is 4½ days. Training may be provided at Stanford University or locally by Stanford-certified master trainers (widely available in the United States).
License(s) and License Source	License must be purchased from Stanford University before the start of the program. License must be renewed every 3 years. License can be purchased specifically to offer CDSMP as a single program license, or CDSMP can be licensed through a multiple program license along with ASMP and other Stanford Patient Education Research Center Programs. Information about current Stanford license fees is available at http://patienteducation.stanford.edu/licensing/ .
Physical Space	Community room that is Americans with Disabilities (ADA) accessible with enough space for leaders, participants, flip charts, white board, and comfortable chairs.
Equipment	Flip charts, markers, and a CD player.
Implementation Costs	<ul style="list-style-type: none"> • Licensing: Single Program License: \$500 for offering 10 or less workshops per year; \$1000 for offering 30 or less workshops per year; offering over 30 workshops per year must be negotiated with Stanford University Office of Technology Licensing. Multiple Program License: \$1,000 for offering up to 25 workshops per year; \$1,500 for offering up to 40 workshops per year. Available at http://patienteducation.stanford.edu/licensing/. • Training: CDSMP training options include: <ul style="list-style-type: none"> ○ Send leaders to training held locally and hosted by another organization (costs vary). ○ Send leaders to training offered at Stanford. Registration fees for training are \$1,600 for each health professional, \$900 for a lay person with a chronic disease. ○ Host a leader-training by using local master trainers (costs vary), or bring Stanford master trainers to your location: \$16,000 plus travel costs for trainer for training up to 26 leaders per course. • Leader Materials: Leader manuals are provided with license (may be reproduced). CDSMP books: <i>Living a Healthy Life with a Chronic Condition</i>: \$10-\$15 each plus CDs \$12 each. Program materials are available from Bull Publishing Company. • Equipment: Flipchart, flipchart stand, and other training-related equipment. • Participant Materials: CDSMP book <i>Living a Healthy Life with a Chronic Condition</i>: \$19.00 plus CD: \$12 each.
Quality Assurance	
Monitoring	Site visits are recommended to assure fidelity to CDSMP. A Fidelity Manual is available.

Chronic Disease Self-Management Program (CDSMP) Self-Management Education Intervention	
Data Reporting	Every licensed organization must submit a yearly report to Stanford that includes the number of workshops offered, dates of each workshop and the number of participants. If applicable, the number of leader trainings or master trainer trainings conducted is identified.
Outcome Evaluation	Optional
Sustainability	Programs may consider covering the cost of materials by charging a small participant registration fee. Establishing a lending library is another option.
Contact Information	
Developer	Stanford University Patient Education Research Center
Distributor	Stanford University Patient Education Research Center
Contact	Stanford: http://patienteducation.stanford.edu
Evidence Base (Selected References)	
	<p>Lorig KR, Sobel DS, Stewart AL, Brown BW Jr, Bandura A, Ritter P, et al. Evidence suggesting that a chronic disease self-management program can improve health status while reducing hospitalization a randomized trial [abstract]. <i>Medical Care</i>. 1999; 37(1):5-14. Available at http://www.ncbi.nlm.nih.gov/pubmed/10413387. The study was a 6-month randomized, controlled trial at community-based sites comparing treatment subjects with wait-list control subjects. Participants were 952 patients aged 40 years or older with a physician-confirmed diagnosis of heart disease, lung disease, stroke, or arthritis. Health behaviors, health status, and health service use as determined by mailed, self-administered questionnaires, were measured. Treatment subjects, when compared with control subjects, demonstrated improvements at 6 months in weekly minutes of exercise, frequency of cognitive symptom management, communication with physicians, self-reported health, health distress, fatigue, disability, and social/role activities limitations. They also had fewer hospitalizations and days in the hospital. No differences were found in pain/physical discomfort, shortness of breath, or psychological well-being. An intervention designed specifically to meet the needs of a heterogeneous group of chronic disease patients, including those with comorbid conditions, was feasible and beneficial beyond usual care in terms of improved health behaviors and health status. It also resulted in fewer hospitalizations and days of hospitalization.</p> <p>Lorig K, Ritter PL, Plant K. A disease-specific self-help program compared with a generalized chronic disease self-help program for arthritis patients. <i>Arthritis and Rheumatism</i>. 2005; 53(6):950–957. PMID: 16342084. Available at http://www3.interscience.wiley.com/cgi-bin/fulltext/112193125/PDFSTART. Both the Arthritis Self-Management Program (ASMP) and the generic Chronic Disease Self-Management Program (CDSMP) have been shown to be successful in improving conditions in patients with arthritis. This study compared the relative effectiveness of the two programs for individuals with arthritis. Patients whose primary disease was arthritis were randomized to the ASMP (n = 239) or to the CDSMP (n = 116). The disease-specific ASMP appeared to have advantages over the more generic CDSMP for patients with arthritis at 4 months. These advantages had lessened slightly by 1 year. The disease-specific ASMP should be considered first where there are sufficient resources and participants. However, both programs had positive effects, and the CDSMP should be considered a viable alternative.</p> <p>Brady T, Murphy L, Beauchesne D, Bhalakia A, Chervin D, Daniels B, et.al. Sorting through the evidence for the arthritis self-management program and the chronic disease self-management program. [Executive Summary]. . 2011 May. Available at http://www.cdc.gov/arthritis/docs/ASMP-executive-summary.pdf. A quantitative synthesis of patterns across empirical studies to determine the effectiveness of ASMP and CDSMP interventions on health status, health behaviors, and health care use in both short-term and long-term follow-up. These meta-analyses used data from 24 studies of ASMP and 23 studies of CDSMP. The findings suggested that ASMP and CDSMP contribute to improvements in psychological health status, self-efficacy, and select health behaviors and that many of those improvements are maintained over 12 months. While the effects are modest, they have great public health significance when the cumulative impact of small changes across a large population is considered. Furthermore, if sustained, these shifts may have a substantial effect on health-related quality of life and the physical, psychological, and psychosocial impact of chronic health conditions.</p>

Programa de Manejo Personal la Artritis
Spanish Arthritis Self-Management Program
 Self-Management Education Intervention

Program Description	Programa de Manejo Personal la Artritis is an interactive workshop for Spanish-speaking people with arthritis that focuses on chronic disease management skills including decision-making, problem-solving, and action-planning. The program was developed in Spanish by a team of researchers at Stanford University. It is modeled on the English version (ASMP). Workshops are conducted in Spanish and cover similar topics as ASMP in a culturally appropriate manner.
Program Outcomes	Designed to increase self-confidence, physical, and psychosocial well-being and motivation to manage chronic disease challenges.
Target Audience	Spanish-speaking people with arthritis; appropriate for older adults.
Key Activities	Interactive education includes discussion, brain storming, and practice of action-planning and feedback, behavior modeling, problem-solving techniques and decision making. Symptom management includes exercise, relaxation, communication, healthy eating, medication management and managing fatigue.
Setting	Community
Mode of Delivery and Class Size	Interactive small group with a recommended workshop size: 10–16 participants.
Duration and Number of Sessions	2–2½-hour workshops offered once per week for 6 weeks.
Program Requirements	
Capacity	
Leader Qualifications	Each workshop requires a pair of Spanish-speaking trained leaders. Leaders may include either two lay (peer) leaders or one health professional and one peer leader. One of the peer leaders should have a chronic condition.
Training/Training Source	Leaders must first complete CDSMP leader training, a 4½-day training provided by certified CDSMP master trainers (widely available in the U.S.). Following CDSMP training, leaders must complete a ½-day ASMP specific Webinar offered by Stanford University.
License(s) and License Source	License must be purchased from Stanford University before the start of the program. License must be renewed every 3 years. License can be purchased specifically to offer Spanish ASMP as a single program license, or Spanish ASMP can be licensed through a multiple program license along with ASMP, CDSMP, and other Stanford Patient Education Research Center Programs. Information about current Stanford license fees is available at : http://patienteducation.stanford.edu/licensing/
Physical Space	Community room that is Americans with Disability Act (ADA) accessible with enough space for leaders, participants, flip charts, white board, and comfortable chairs.
Equipment	Flip charts, markers, and a CD player.
Implementation Costs	<ul style="list-style-type: none"> • Licensing: Single Program License: \$500 for offering 10 or fewer workshops per year, \$1,000 for offering 30 or fewer workshops per year, offering over 30 workshops per year must be negotiated with Stanford University Office of Technology Licensing. Multiple Program License: \$1,000 for offering up to 25 workshops per year; \$1,500 for offering up to 40 workshops per year. • Training: Leaders must complete CDSMP training as prerequisite to being trained in ASMP. Note: this training is in transition; call Stanford for more information. ASMP: ASMP specific follow up training via Webinar: \$350 per leader. CDSMP Training Options include: <ul style="list-style-type: none"> ○ Send leaders to training held locally and hosted by another organization (costs vary). ○ Send leaders to training offered at Stanford. Registration fees for training are \$1,600 for each health professional, \$900 for a lay person with a chronic

Programa de Manejo Personal la Artritis
Spanish Arthritis Self-Management Program
 Self-Management Education Intervention

	<p>disease.</p> <ul style="list-style-type: none"> ○ Host a leader-training by using local master trainers (costs vary), or bring Stanford master trainers to your location: \$16,000 plus travel costs for trainer for training up to 26 leaders per course. Available at http://patienteducation.stanford.edu/training/ ● Leader Materials: Leader manual is provided with license and may be reproduced. ● Equipment: Flipchart, flipchart stand, and other training-related equipment. ● Participant Materials: <i>Cómo convivir con su artritis: Una guía para una vida activa y saludable (Segunda edición) (Living with Arthritis: A Guide for an Active and Healthy Life)</i> is available from Bull Publishing. An exercise CD is available.
Quality Assurance	
Monitoring	Site visits are recommended to assure fidelity to CDSMP/ASMP.
Data Reporting	Every licensed organization must submit a yearly report to Stanford that includes the number of workshops offered, dates of each workshop and the number of participants.
Outcome Evaluation	Optional
Sustainability	Programs may consider covering the cost of materials by charging a small participant registration fee. Establishing a lending library of participant materials is another option.
Contact Information	
Developer	Stanford University Patient Education Research Center.
Distributor	Stanford University Patient Education Research Center.
Contact	Sonia Alvarez or Gloria Samuel at 1-800-366-2624 or self-management@stanford.edu .
Evidence Base (Selected References)	
	<p>Lorig K, González VM, Ritter P. Community-based Spanish language arthritis education program: a randomized trial. <i>Medical Care</i>. 1999; 37(9):957–963. PMID: 10493473. At 4 months, treatment subjects, compared with controls, demonstrated positive changes in exercise, disability, pain, and self-efficacy ($P < 0.05$). At 1 year, compared with baseline, treatment subjects demonstrated improvements in exercise, general health, disability, pain, self-efficacy, and depression ($P < 0.05$). Baseline and 4-month changes in self-efficacy predicted health status at 1 year. Conclusions: Spanish-speaking participants of an arthritis self-management program demonstrate short- and long-term benefits (improved health behaviors, health status, and self-efficacy).</p> <p>Wong AL, Harker JO, Lau VP, Lau VP, Shatzel S, Port LH, and Spanish Arthritis Empowerment Program: a dissemination and effectiveness study. <i>Arthritis and Rheumatism</i>. . 2004; June 15; 51(3):332–336. PMID: 15188316. Available at http://www3.interscience.wiley.com/cgi-bin/fulltext/109062076/PDFSTART. The objective of the study was to evaluate the effectiveness of the Spanish Arthritis Empowerment Program as presented by the Arthritis Foundation, Southern California Chapter, in Orange County, California. Of the 141 participants, 118 completed 6-month follow-up testing. Repeated-measures analysis of variance showed significant improvement from pretest to 6-month follow-up in pain; self efficacy, self-care behavior, arthritis knowledge, and general health. Small improvement was reported in mHAQ. The Spanish Arthritis Empowerment Program was successfully disseminated. Significant improvements in self efficacy and in arthritis symptoms were maintained at the 6-month follow up.</p>

Tomando Control de su Salud
Spanish Take Control of Your Health – Chronic Disease Self-Management Program
 Self-Management Education Intervention

Program Description	Tomando Control de su Salud is an interactive workshop for Spanish-speaking people with one or more of chronic health conditions (e.g., arthritis, diabetes, heart or lung disease) that focuses on chronic disease management skills including decision-making, problem-solving, and action-planning. The program was developed in Spanish by a team of Stanford University researchers. It is based on the English version Chronic Disease Self-Management Program (CDSMP). Workshops are conducted in Spanish and cover similar topics as CDSMP in a culturally appropriate manner.
Program Outcomes	Designed to increase self-confidence, physical and psychosocial well-being and motivation to manage chronic disease challenges.
Target Audience	Spanish-speaking adults with one or more chronic health conditions including people with arthritis; appropriate for older adults.
Key Activities	Interactive education includes discussion, brain storming, and practice of action-planning and feedback, behavior modeling, problem-solving techniques and decision making. Symptom management includes exercise, relaxation, communication, healthy eating, medication management, and managing fatigue.
Setting	Community
Mode of Delivery and Class Size	Interactive small group with a recommended workshop size: 10–16 participants.
Duration and Number of Sessions	2–2½-hour workshops offered once per week for 6 weeks.
Program Requirements	
Capacity	
Leader Qualifications	Each workshop requires a pair of trained Spanish-speaking leaders. Leaders may include either two lay (peer) leaders or one health professional and one peer leader. One of the peer leaders should have a chronic condition.
Training/Training Source	Leader training is 4½ days. Training may be provided at Stanford or locally by Stanford certified master trainers. Training is in Spanish.
License(s) and License Source	License must be purchased from Stanford University before the start of the program. License must be renewed every 3 years. License can be purchased specifically to offer as a single program license, or Spanish CDSMP can be licensed through a multiple program license along with CDSMP and other Stanford Patient Education Research Center Programs. Information about current Stanford license fees is available at http://patienteducation.stanford.edu/licensing/ .
Physical Space	Community room that is Americans with Disabilities (ADA) accessible with enough space for leaders, participants, flip charts, white board, and comfortable chairs.
Equipment	Flip charts, markers, and a CD player,
Implementation Costs	<ul style="list-style-type: none"> • Licensing: Single Program License: \$500 for offering 10 or fewer workshops/year; \$1000 for offering 30 or fewer workshops per year; offering more than 30 workshops per year must be negotiated with Stanford University Office of Technology Licensing. Multiple Program License: \$1,000 for offering up to 25 workshops per year; \$1,500 for offering up to 40 workshops per year. http://patienteducation.stanford.edu/licensing/. • Training: Spanish CDSMP training options include— <ul style="list-style-type: none"> ○ Send leaders to training held locally and hosted by another organization (costs vary). ○ Send leaders to training offered at Stanford. Registration fees for training are \$1,600 for each health professional, \$900 for a lay person with a chronic disease. ○ Host a leader-training by using local master trainers (costs vary), or bring Stanford master trainers to your location: \$16,000 plus travel costs for

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	<p>trainer for training up to 26 leaders per course.</p> <ul style="list-style-type: none"> • Leader Materials: Leader manuals are provided with license (may be reproduced). CDSMP books: Tomando Control de su Salud \$10-\$15 each plus CDs \$12 each. Program materials are available from Bull Publishing: https://www.bullpub.com/. • Equipment: Flipchart, Flipchart stand, and other training-related equipment. • Participant Materials: CDSMP book <i>Tomando Control de su Salud</i>: \$10-\$15 plus CD: \$12 - \$15.16 each.
Quality Assurance	
Monitoring	Site visits are recommended to assure fidelity to CDSMP. Fidelity Manual available.
Data Reporting	Every licensed organization must submit a yearly report to Stanford that includes the number of workshops offered, dates of each workshop and the number of participants. If applicable, the number of leader trainings or master trainer training conducted are identified.
Outcome Evaluation	Optional
Sustainability	Programs may consider covering the cost of materials by charging a small participant registration fee. Establishing a lending library of participant materials is another option.
Contact Information	
Developer	Stanford University Patient Education Research Center
Distributor	Stanford University Patient Education Research Center
Contact	http://patienteducation.stanford.edu
Evidence Base (Selected References)	
	<p>Lorig KR, Ritter PL, González VM. Hispanic chronic disease self-management: a randomized community-based outcome trial [abstract]. <i>Nursing Research</i>.2003; 62(6):361–369. Available at http://journals.lww.com/nursingresearchonline/Abstract/2003/11000/Hispanic_Chronic_Disease_Self_Management_A.3.aspx.</p> <p>This study aimed to evaluate the Spanish version of CDSMP among Spanish speakers with heart disease, lung disease, or type 2 diabetes. At 4 months, the participants, as compared with usual-care control subjects, demonstrated improved health status, health behavior, and self-efficacy, as well as fewer emergency room visits. At 1 year, the improvements were maintained and remained significantly different from baseline condition.</p> <p>Lorig KR, Ritter PL, Jacquez A. Outcomes of border health Spanish/English chronic disease self-management programs. [Abstract]. <i>Diabetes Educator</i>. 2005; 31(3):401–409. Available at http://www.ncbi.nlm.nih.gov/pubmed/15919640?dopt = Abstract Plus.</p> <p>The purpose of this study was to evaluate the community-based Chronic Disease Self-management program (CDSMP) and the Spanish-language version (Tomando Control de Su Salud) programs as delivered in settings along the Texas/New Mexico/Mexico border. Baseline self-efficacy and 4-month change in self-efficacy were significantly associated with improved 1-year outcomes. The CDSMP and Tomando are effective when used in settings other than that of the original study for populations other than those for which they were initially developed.</p>

For more
information,
contact the CDC
Arthritis Program:
[http://www.cdc.gov/art
hritis/interventions.htm](http://www.cdc.gov/art
hritis/interventions.htm)

Beth Hines, MPH

ehines@cdc.gov

Teresa Brady, PhD

tbrady@cdc.gov

