

[심포지엄]

생애전환기 건강증진 분야별 상담 전략

- 운동 -

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한국인의 건강증진행태

- 흡연 (20세 이상 성인) (2005)
 - 남자 52.3%, 여자 5.8% (2003 56.7%, 3.5%)
- 비만 (성인, BMI ≥25.0)
 - 남자 32.6%, 여자 29.4% ('98 25.1, 28.1%)
- 운동
 - 걷기 운동(1일 30분 이상, 5일이상) 60.1%
 - 중등도 운동(1일 30분 이상, 주 5일이상) 21.8%
 - 고강도 운동(1일 20분 이상, 주 3일이상) 15.2%
- 음주
 - 음주율: 남 73.3%, 여 36.3% (54.6%)
 - 알코올 의존: 남 18.0%, 여 2.9%
- 주관적 스트레스 인지율 35.1%
- 자살 사고율 : 남 13.8%, 여 23.0% (전체 18.5%)
- 안전벨트 착용 : 82.6%
- Ref) 국민건강영양조사, 보건복지부, 2005.

2007 생애전환기 건강진단

생애전환기 건강진단 매뉴얼

생애전환기 건강진단 매뉴얼

1. 건강위험평가 및 상담 시 활용기법
2. 행동변화단계별 전략
3. 2차 건강진단에서 생활습관 평가 처방
4. 정신건강검사
5. 노인건강진단

생애전환기 건강진단 매뉴얼

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생활습관 평가/처방 매뉴얼

해외 건강위험습관 관리사례

- 현재까지 축적된 의학적 근거를 기반으로 개발되어 현재 사용 중인 건강위험습관 관리지침
 - US department of Health and Human services의 금연 가이드(USA)
 - NIAAA의 금주/절주 가이드(USA)
 - Society for Exercise Physiology의 신체활동 가이드(Canada)
 - Department of Health and Ageing의 SNAP과 Lifescripts Intervention (Australia)

국내 건강위험습관 관리현실

- 건강위험습관 관리 미흡
 - 국민보험공단 건강검진:개인 맞춤식 평가 미흡하고 사후관리 부족
 - 일차의료영역의 상대적 관리 소홀:수가제도의 문제, 의과대학에서 교육받지 못한 영역
- 건강위험습관이 한국인의 질병/사망에 미치는 영향에 대한 연구가 부족한 실정
 - 한국형 가이드를 만들기가 어려운 현실

생애전환기 2차 건강진단의 의의

- 국가 주도의 체계적 건강위험습관 관리
- 국민 건강수준 향상
- 의료비 절감
- 일차의료의 위상과 역할 정립
- 상담에 대한 수가 보전

2차 건강진단

- 대상
 - 1차 건강진단 결과상 2차 건강진단을 권고 받고 자발적으로 해당 의료기관을 방문한 수검자
- 건강위험습관 영역
 - 흡연/음주/운동/영양/비만

2차 건강진단

영역별 상담 목표

- 1) 각 영역별로 5A라는 단계적 접근방법을 통하여 상담 진행
- 2) 행동변화단계 및 성공확신 평가, 적절한 동기화 면담기술 사용, 해당 영역별 책자/교육자료 활용
- 3) 지속적인 건강위험습관 관리

5A 접근법

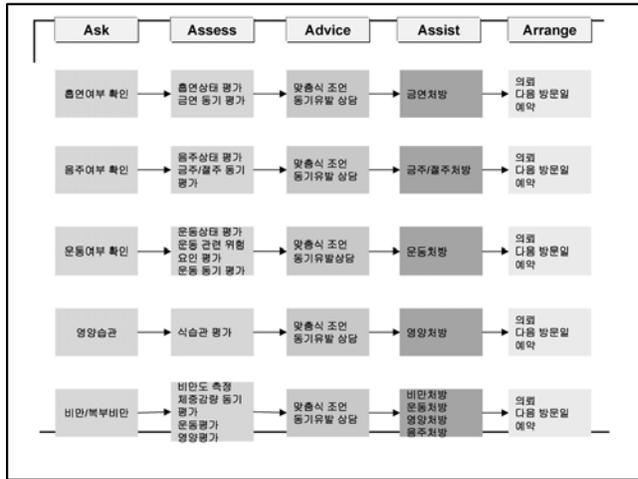
- Ask-Assess-Advise-Assist-Arrange
- 1996년 미국의 Department of Health and Human Services에서 금연지침을 제작하며 최초로 적용
- 최근에는 모든 영역의 건강위험습관 개선 프로그램에 확대 적용

5A 접근법

- Ask (묻기)
 - 환자가 가지고 있는 건강위험습관 유무 확인
- Assess (평가하기)
 - 1) 건강위험습관 상태 평가
 - 2) 생활습관 개선에 대한 행동변화단계 평가
흡연: 계획이전단계 vs 계획단계 vs 준비단계
 - 3) 생활습관 개선에 대한 고려단계 평가
음주/운동/영양/비만: 고려 전단계 vs 고려단계

5A 접근법

- Advise (조언하기)
 - 동기유발 면담(격려/지지)
 - 방해요인 대처방법 제공
- Assist (처방하기)
 - 맞춤식 처방
 - 책자/교육자료 제공
- Arrange (의뢰하기)
 - 전문가/관련 기관/보건소 의뢰
 - 다음 방문일 결정

생활습관 평가도구

타당도 조사가 이루어진 설문지와 신체계측을 통해 평가

- 흡연: 한국어판 니코틴 의존도 설문지 (FTND-K) 6문항
- 음주: 한국어판 AUDIT 설문지(AUDIT-K) 10 문항

생활습관 평가도구

- 운동: 간결하고 명확한 한국형 신체활동량 평가 도구 부재
 - 호주 Lifescripts 가이드의 신체활동량 평가 질문 3문항
 - PAR-Q (Physical Activity Readiness Questionnaire) 7문항
- 영양: 간이식생활진단표 10문항
- 비만: 체질량지수/허리둘레

2차 건강진단 교육자료

- 고혈압
- 당뇨병
- 고지혈증
- 고요산혈증/통풍
- B형 간염
- 소화성 궤양
- 빈혈
- 골다공증
- 음주
- 비만
- 금연
- 운동
- 유방암의 조기발견
- 위암, 폐암, 대장암의 조기발견과 예방



의뢰 기관

- 흡연: 보건소 금연 클리닉, 금연 콜 센터
- 음주: 알코올 전문병원, 금주/단주 모임
- 운동: 스포츠센터, 2/3차 의료기관
- 영양: 2/3차 의료기관 영양사
- 비만: 비만 클리닉

건강위험습관 유무 확인

- 1차 건강진단 결과통보서의 생활습관개선 권고 항목 확인
- 기타
 - 1차 건진 결과 권고항목이 아니더라도 수검자가 평가 받기 원하는 건강위험습관
 - 1차 검진결과 권고항목이 아니더라도 의료진이 판단하기에 평가가 필요하다고 생각되는 건강위험습관

해당 건강위험습관 평가 시작

운동평가



운동 평가

본인에게 해당하는 항목을 찾아 *표를 하십시오.

1. 당신은 30분 이상 땀이 나거나 심장이 뛰는 격렬한 강도의 운동을 1주일에 하고 계십니까?
(예: 무거운 짐 운반, 말타기, 조깅, 배어로빅, 자전거 탈기 등)
□0 □1 □2 □3 □4 □5 □6 □7
2. 당신은 30분 이상 강기를 1주일에 보통 몇 회나 하고 계십니까?
(예: 운동이나 여가로 이 장소에서 저 장소까지 걷기)
□0 □1 □2 □3 □4 □5 □6 □7
3. 당신은 30분 이상 심장박동이 증가하고 평상시보다 숨이 찬 중간 강도의 운동을 보통 몇 회나 하고 계십니까?
(예: 가벼운 짐 운반, 자전거 타기, 복식 테니스 치기)
□0 □1 □2 □3 □4 □5 □6 □7

문1~3. 신체활동수준 평가

Lifescrpts 문항
고강도/저강도/중간강도 신체활동 횟수

세 문항 점수를 합산

0-1 점: 신체활동량이 부족한 상태

2-4점: 그런대로 건강을 유지할 수 있는 상태

> 5점: 건강을 증진시키기에 충분한 상태

운동 평가

신체 활동량이 부족한 수검자에게

- 운동시작 고려 단계 평가
“운동을 시작할 계획이 있습니까?”
- 운동시작 방해요인 평가

운동 조언

- 동기유발 상담
- 개인 맞춤형 조언
 - 신체활동 수준 설명
 - 운동의 건강상 이점 설명
 - 수검자의 생활습관/기호/일상습관 고려
 - 실제적인 활동량 증대 방법 제공
 - “10분씩 나누어 하루 총 30분간 운동하세요.”
 - 운동 방해 요인에 대한 대처방법 제공

운동 평가

4. 심장에 문제가 있어서 운동을 할 경우 의사의 권고에 의해서만 하고 싶은 적이 있습니까?
 예 아니요

5. 운동을 할 때 가슴에 통증을 느낀 적이 있습니까?
 예 아니요

6. 지난달에 운동을 하지 않고 있는 동안에도 가슴에 통증을 느낀 적이 있습니까?
 예 아니요

7. 어지럼증이나 의식소실로 인해 균형을 잃은 적이 있습니까?
 예 아니요

8. 운동을 하면 숨이 빠나 관절에 문제가 생긴 적이 있습니까?
 예 아니요

9. 현재 혈압이나 심장병에 의사와부터 처방을 받고 있습니까?
 예 아니요

10. 운동을 하면 안 되는 다른 이유가 있습니까?
 예 아니요

문항 4~10. 운동관련 위험요인 평가

PAR-Q

심혈관 질환 선별목적
 처음으로 운동을 시작할 때 적용

이전보다 운동량을 늘리고자 할 때 적용

한 문항이라도 '예'라고 대답
 응답한 문항에 대한 정밀 평가 필요

운동 처방(전)

운동 처방전

발달일: _____ 연령: _____

병사 내역: _____

1. 과거의 운동 수준
 강도를 유지하기에도 부족한 수준입니다.
 강도를 유지할 수는 있지만 강도를 증진시키려는 충분한지 알은 수준입니다.
 강도를 증진시키기에 충분한 수준입니다.

2. 과거의 건강과 삶의 질을 증진시키기 위해 다음과 같은 운동을 권장합니다.

1) 운동 종류
 빠르게 걷기 조깅 등산
 수영 수중운동 자전거타기
 테니스 탁구
 근력운동 기타: _____

2) 운동 시간
 10분 15-30분 30분 이상 기타: _____

3) 운동 횟수
 1주일 1-2회 1주일 3-4회 1주일 5회 이상

3. 운동을 통해 호전을 기대할 수 있는 과거의 질환 상태

<input type="checkbox"/> 비만/고지혈증	<input type="checkbox"/> 고콜레스테롤	<input type="checkbox"/> 고혈압
<input type="checkbox"/> 당뇨병	<input type="checkbox"/> 심장질환	<input type="checkbox"/> 뇌졸중
<input type="checkbox"/> 만성폐쇄성폐질환	<input type="checkbox"/> 골다공증	<input type="checkbox"/> 관절염/관절염
<input type="checkbox"/> 만성	<input type="checkbox"/> 우울증	<input type="checkbox"/> 기타: _____

모든 질문에만 '아니오'라고 대답해서 처방을 해선 안 됩니다.

수치의 대용/제명: _____

1. 운동 수준 제시
2. 맞춤형 운동 처방
운동종류
운동시간
운동횟수
3. 운동을 통해 호전을 기대할 수 있는 질병 상태 설명
지속적인 동기부여
환자의 질병 상태 파악
4. 의뢰
PAR-Q 선별문항에서 “예”라고 대답한 항목이 있을 때
운동 금기 질환이 있을 때
5. 주치의 이름

운동 처방

- 처음 운동을 시작하는 경우에는 약 3개월 간 점진적으로 저강도 운동에서 중간 강도 운동으로 이행
- 운동 시작 첫 주는 10분 전후로 주 3회 이상 시작하여 점진적으로 1일 30분 이상, 주 5회 이상으로 늘리도록 권장



운동 처방

- 고강도 운동으로 진행할 때에는 최소 중간강도로 3-6개월 간 유지한 후 PAR-Q를 통해 운동관련 위험요인을 평가한 후 진행



진행의 단계 위한 PAR-Q

Ask 필요한 모든 질문에 대해 대답 확인한다.
 - “과거에도 운동하셨습니까?” 라고 질문한다.
 - 강도높은 운동활동에서의 경험(예를 들어) 여부를 확인한다.

Assess 반문항 선별문항 수준을 운동 관련 위험요인을 평가한다.
 - 운동량 증진시키기 위해 충분한 정도의 운동을 하고 있는가?
 - 운동량 증진시키기 위해 충분한 정도의 운동을 하고 있는가?

Advise 환자에게 개별화된 “운동” 조언을 제공한다.
 - 운동하기 시작할 수 있을 때까지.
 - 운동하기 전에 의사를 만나야 할지 확인한다.
 - 운동을 할 때는 의사와 의사(의사)를 만나야 한다.
 - 반드시 심박수와 전신적인 운동 목표를 정하도록 한다.

Assist 운동처방을 한다.
 - 처방받은 처방을 한다.
 - 기록을 보관한다.
 - 다음 방문일을 정한다.

Arrange “다음에 다시 방문일을 정한다.”
 - 운동 전문가에게 의뢰한다.
 - 여러 전문가를 가진 환자는 처방을 위해 의뢰를 고려한다.
 - 수시로 다시 방문하도록 한다.

Yes 운동이 효과를 보지 못한 경우와 관련 운동량을 조정하도록 권고한다.
 - 운동 관련 위험요인에 의뢰를 받도록 권고한다.

Yes “예” 라고 대답한 경우 심혈관 질환 위험이 높기 때문에 정기적으로 운동을 할 수 있도록 권고한다.



Randomized controlled trials of physical activity promotion

- Inclusion
 - RCT
 - Free living adult subjects
- Conclusion
 - Previously sedentary adults can increase activity levels
 - Promotion : personal instruction, continued support. Moderate exercise
 - Walking fulfills the criteria
- J Epid Comm Health 1995:49:448

Once a week is not enough: Effects of a group based exercise program for older adults

- HRQoL, aged 65–80 yr
 - Group based exercise program for older adults in Netherlands(10 weeks)
 - RCT: once weekly, twice weekly, education
- Group2 only improve Vitality+ scale (p=.01)
- To improve health, do physical activity at least twice a week
- J Epid Comm Health 2004:58:83

Leisure time exercise and personal circumstances in the working age population

- Longitudinal regression analysis of the British household panel survey (8 years)
- Reduced likelihood of exercise
 - Having children
 - Working long hours
- Increased likelihood of exercise
 - Retired men and women

Posters can prompt less active people to use the stairs

- Interview for 1779 persons->658
 - 270 stair users, 388 escalator users
- Logistic regression : stair use increased significantly
- Main reason for stair use : improved health(41.4%)
- Reasons for escalator users : ease of use(30.3%), laziness(24.2%)
- J Epid Comm Health 2000:54:942

Multilevel modeling of built environment characteristics related to neighborhood walking activity

- Cross-sectional study for 56 city, 577 residents(mean age=74, SD=6.3 years)
- Main outcome : self-reported walking
- Positive relation between environment factors and walking activity
 - density of employment places, household density, green & open spaces for recreation, # street intersections
- Resident level : # nearby recreational facilities related with walking activity
- J Epid Comm Health 2005:59:558

Physical Activity Guideline (Canada)

- What do the experts say?
 - Endurance activities
 - Flexibility activities
 - Strength activities
- Physical Activity Readiness Questionnaire(PAR-Q)

Endurance Activities: (4-7 days a week)

Endurance activities help your heart, lungs and circulatory system stay healthy and give you more energy. They range from walking and household chores to organized exercise programs and recreational sports. Check out [Joshua & Maria's Story](#).

Here are some examples to get you thinking about how to increase your endurance activities:

- walking
- golfing (without a ride-on cart)
- yard and garden work
- propelling a wheelchair ("wheeling")
- cycling
- skating
- continuous swimming
- tennis
- dancing

Flexibility Activities: (4-7 days a week)

Flexibility activities help you to move easily, keeping your muscles relaxed and your joints mobile. Regular flexibility activities can help you to live better, longer, so that your quality of life and independence are maintained as you get older. Flexibility activities include gentle reaching, bending, and stretching of all your muscle groups. See how Jacqueline did it...

Here are some ideas to help you increase your flexibility activities:

- gardening
- mopping the floor
- yard work
- vacuuming
- stretching exercises
- Tai Chi
- golf
- bowling
- yoga
- curling
- dance



Strength Activities: (2-4 days a week)

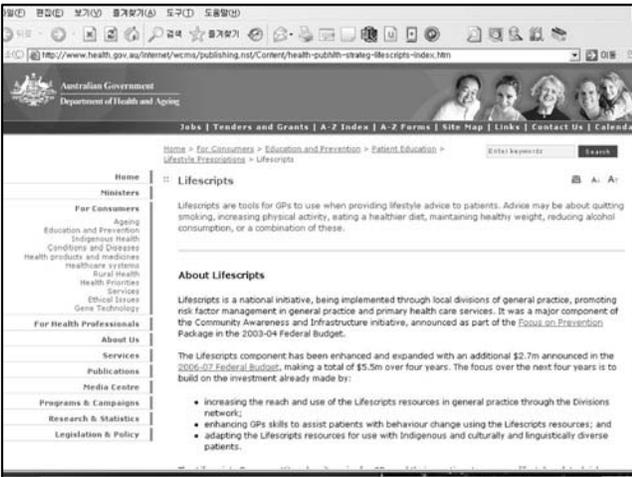
Strength activities help your muscles and bones stay strong, improve your posture and help to prevent diseases like osteoporosis. Strength activities are those that make you work your muscles against some kind of resistance, like when you push or pull hard to open a heavy door.

To ensure good overall strength, try to do a combination of activities that exercise the muscles in your arms, mid-section, and legs. Strive for a good balance - upper body and lower body, right and left sides, and opposing muscle groups (e.g., both the front and back of the upper arm). Here are some ideas to increase your strength activities:

- heavy yard work, such as cutting and piling wood
- raking and carrying leaves
- lifting and carrying groceries (not to mention infants and toddlers!)
- climbing stairs
- exercises like abdominal curls and push-ups
- wearing a backpack carrying school books
- weight/strength-training routines

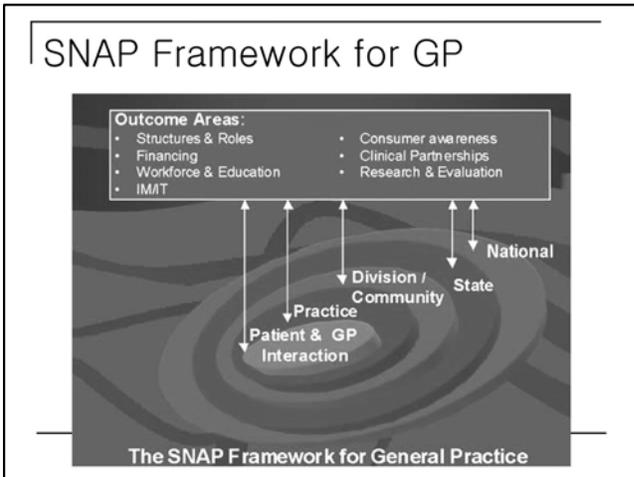
Safe Strength Training

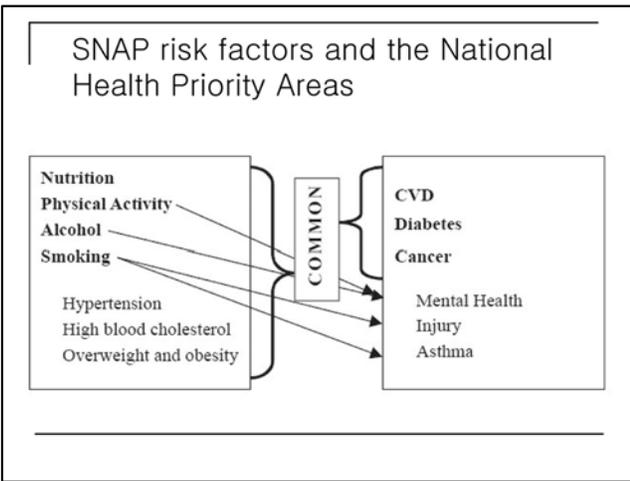
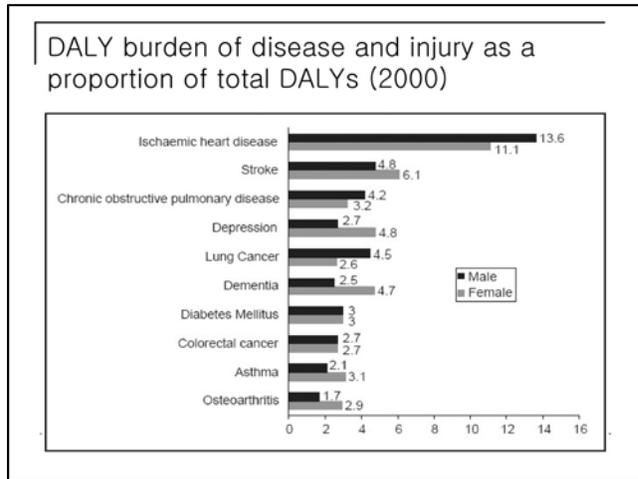
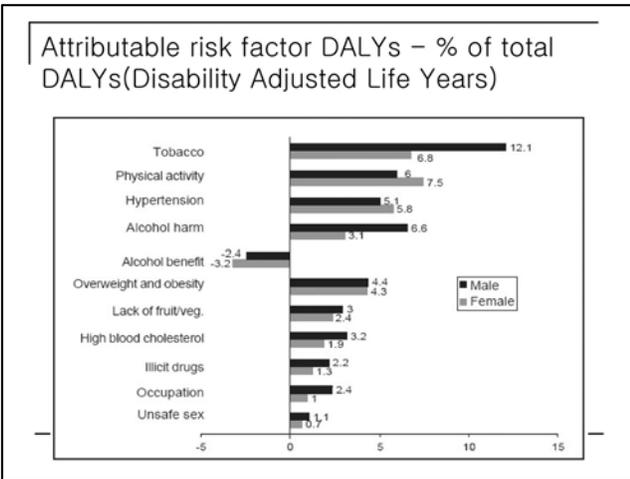
- Start with five minutes of

The screenshot shows the Australian Government Department of Health and Ageing website. The page title is "Lifescripts". The content includes a description of Lifescripts as tools for GPs to provide lifestyle advice, and information about the Lifescripts initiative, including its expansion in the 2006-07 Federal Budget. Key points mentioned are:

- increasing the reach and use of the Lifescripts resources in general practice through the Divisions network;
- enhancing GPs skills to assist patients with behaviour change using the Lifescripts resources; and
- adapting the Lifescripts resources for use with Indigenous and culturally and linguistically diverse patients.





- ### Physical Activity Guidelines
- Think of movement as an opportunity, not an inconvenience.
 - Be active every day in as many ways as you can.
 - Put together at least 30 minutes of moderate-intensity physical activity on most, preferably all, days.
 - If you can, also enjoy some regular, vigorous exercise for extra health and fitness.

An active way to better health.

NATIONAL PHYSICAL ACTIVITY GUIDELINES FOR ADULTS

This brochure sets out four steps to better health for Australian adults. Together, guidelines recommend the minimum amount of physical activity you need to do to reduce your health risks and to obtain the health benefits. To care out all these guidelines and combine an active lifestyle with healthy eating.

Guidelines are for those who are able, and wish, to achieve greater health and fitness benefits.

- 1 Think of movement as an opportunity, not an inconvenience.
- 2 Be active every day in as many ways as you can.
- 3 Put together at least 30 minutes of moderate-intensity physical activity on most, preferably all, days.
- 4 If you can, also enjoy some regular, vigorous activity for extra health and fitness.

Regular physical activity can:

- help prevent heart disease, stroke and high blood pressure.
- reduce the risk of developing type 2 diabetes and some cancers.
- help build and maintain healthy bones, muscles and joints reducing the risk of injury, and
- promote psychological well-being.

Guideline 1

THINK OF MOVEMENT AS AN OPPORTUNITY, NOT AN INCONVENIENCE.

When you think of movement as an opportunity, you are more likely to be active. It is an opportunity to be active, not a burden. It is an opportunity to be active, not a burden. It is an opportunity to be active, not a burden.

The goal for movement

The human body was designed to move. Over hundreds of thousands of years of evolution, human beings have evolved the power of manual, hearing, gathering, farming, food, collecting and building shelters.

But the technology of today has reduced much of the opportunity for human movement. Can you reduce how much we walk, stretch and follow running during daily network for us both in the workplace and at home. Some constraints such as TVs, video, DVDs and computers, can keep us inactive for long periods.

The shift in human movement has been decreasing, but at the same time levels of obesity and other health problems have been increasing.

Changing the way we think about movement is what we need to do to change our attitude toward physical activity. If we are serious about our long-term health, if we view all movement as an opportunity, rather than an inconvenience, we will be taking a positive step towards better health and preventing disease. We can enjoy the benefits of modern technology without the negative health consequences.

Guideline 2

BE ACTIVE EVERY DAY IN AS MANY WAYS AS YOU CAN.

Use a habit of walking or cycling instead of using the car, or taking a short walk or cycle to work. The increase in effort using technology or modern activities has coincided with increasingly poor health. So, we not only need to be active, but we need to be active in ways that are enjoyable and sustainable. It is possible to experience all the health benefits of regular movement by being more active everyday.

Being active in small ways throughout the day is likely to provide health benefits to almost everyone, no matter what your age, body weight, health condition or disability.

Ways to increase activity

Increase in daily activity comes from small changes made throughout your day - they all add up. It is an opportunity to be active, not a burden. It is an opportunity to be active, not a burden. It is an opportunity to be active, not a burden.

• Walk or cycle instead of using the car.

• Park further away from your destination and walk the rest of the way.

• Walk or cycle to and from your train, tram, station or bus stop, and get on and off at a stop that is further away.

Do not strain yourself to the limit.

- Walk rather than run on excursions or travels.
- Work in the garden.
- Play with children in an active way.
- Walk or play with pets.
- Challenge family, friends and work colleagues to be active with you.

Guideline 3

PUT TOGETHER AT LEAST 30 MINUTES OF ACCERATE-INTENSITY PHYSICAL ACTIVITY ON MOST PREFERABLY ALL, DAYS.

We can accumulate your 30 minutes for most throughout the day by combining a few shorter sessions of activity of around 10 to 15 minutes each.

Moderate-intensity activity isn't hard, but noticeable, increase in your breathing and heart rate. A good example of moderate-intensity activity is brisk walking, that is at a pace where you are able to comfortably talk but not sing. Other examples include mowing the lawn, digging in the garden, or medium-paced swimming or cycling.

Guideline 4

IF YOU CAN, ALSO ENJOY SOME REGULAR, VIGOROUS ACTIVITY FOR EXTRA HEALTH AND FITNESS.

Vigorous activity means taking a full service between benefits is difficult. Vigorous activity can come from sports such as football, tennis, netball and basketball and activities such as aerobics, circuit training, speed walking, jogging, ball cycling or brisk walking. For best results, this type of activity should be carried out for a minimum of around 30 minutes, three to four days a week.

Seeking medical advice

Although there's no age barrier to carrying out vigorous activity, medical advice is recommended for those who have been previously inactive, who have heart disease, have other serious health problems, or who have other major health problems.

Vigorous activity in pregnancy is not recommended without strict medical supervision.

Warning, cold, flu, sore throat and a gradual build-up from an inactive level are also recommended with vigorous activity, in line with most recommended fitness training programs.

For more information

www.health.gov.au

Other resources that you may find useful include:

- *Exercise smart: be more active. The problem is getting started.*
- *Australian Physical Activity and Sedentary Behaviour Guidelines for 18-64 year olds.*
- *Australian Physical Activity and Sedentary Behaviour Guidelines for 65+ year olds.*
- *Australian Guide to Healthy Living.*

Each of these can be obtained by calling 1800 000 003 and asking for the NHP publications request form.

NATIONAL PHYSICAL ACTIVITY GUIDELINES FOR ADULTS has been developed through extensive consultation with a wide range of experts in physical activity for the University of Western Australia, and the Centre for Health Promotion and Research, Sydney, for the Australian Government Department of Health and Aging (formerly the Commonwealth Department of Health and Ageing).

GET HEALTHY. GET ACTIVE.

Building a healthy, active Australia.

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Department of Health and Ageing
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United States Department of Health & Human Services

Improving the health and well-being of America

Frequent Questions

14813 Home

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Aging

Diseases & Emergencies

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Specific Populations

HHS Priorities

Value-Driven Health Care

Health Information Technology

Medicare & Medicaid

In the Spotlight

- Asthma Awareness**
Learn more about [asthma](#), read about [Asthma Awareness Month Events](#).
- Review of the Virginia Tech Tragedy**
Secretary Mike Leavitt will lead a [review by top federal officials of issues raised by the Virginia Tech tragedy](#).
- Value-Driven Health Care**
More than 100 million Americans are now served by health plans committed to providing transparent quality and cost information. Read the [press release](#). Learn more about [Value-Driven Health Care](#).
- PandemicFlu.gov**
Visit [PandemicFlu.gov](#) One-stop access to U.S. Government avian and pandemic flu information. Mask guidance released. Learn more.

HHS Family of Agencies

- OS - Office of the Secretary
- ACE - Administration for Children & Families
- ADA - Administration on Aging
- AHRQ - Agency for Healthcare Research & Quality
- AHRP - Agency for Toxic Substances & Disease Registry
- CDC - Centers for Disease Control & Prevention
- CMS - Centers for Medicare & Medicaid Services
- FDA - Food & Drug Administration
- HHS - Health Resources & Services Administration
- HHS - Indian Health Service

News

- May 09:** Strike Force Formed to Target Fraudulent Billing of Medicare Program by Health Care Companies [M0902](#)
- May 09:** U.S. Health Care Sector Moves Rapidly to Provide Consumer Information on Value [M0902](#)
- May 02:** Statement by Mike Leavitt, Secretary of Health and Human Services, Dan Burstein Senate Vote on Patient Protection and Affordable Care Act

Department of Health and Human Services
Centers for Disease Control and Prevention

Division of Nutrition and Physical Activity

Nutrition
Proper nutrition is critical to good health. But identifying which foods you need for a healthy diet can be challenging. These resources can help you get started. [More](#)

Physical Activity
Regular physical activity reduces the risk for many diseases, helps control weight, and strengthens muscles, bones, and joints. For older adults, it can also reduce the risk for falls. [More](#)

Overweight and Obesity
Increases in obesity—among both adults and children—have prompted concern about the implications for Americans' health. Many factors contribute to this complex health issue. [More](#)

CDC's Division of Nutrition and Physical Activity (DNPA) takes a public health approach to address the role of nutrition and physical activity in improving the public's health and preventing and controlling chronic diseases. The scope of DNPA activities includes epidemiological and behavioral research, surveillance, training and education, intervention development, health promotion and leadership, policy and environmental change, communication and social marketing, and partnership development.

NEW!
[Eat Smart! Vegetables Matter!](#)
This Web site supports the "Fruits and Veggies - More Matters" initiative, which encourages the consumption of fruits and vegetables for improved public health. CDC developed and maintains the site in partnership with federal agencies and other organizations.

Physical Activity for Everyone

Introduction

Energy-Useful Living
Who ever spent physical activity at all work and to play? In fact, it can be just the opposite! There is no need to think of strenuous exercise or being athletic. Instead, imagine doing the physical activities you enjoy and reach the health benefits faster!

Selected Resources

VERB
Encouraging teens to be physically active on a weekend basis.

Physical Activity Recommendations for Health Professionals
The Physical Activity for Health Professionals website offers information and tools for the health professional. It provides key research documents, data and surveillance resources and information to assist you with program planning and evaluation, community development and promotion of physical activity.

Physical Activity for Everyone

Components of Physical Fitness

Cardiorespiratory Endurance (Cardiorespiratory Fitness)
Cardiorespiratory endurance is the ability of the body's circulatory and respiratory systems to supply fuel during sustained physical activity (ACSM, 1996). To improve your cardiorespiratory endurance, do activities that keep your heart rate elevated at a rate level for a sustained length of time such as walking, swimming, or bicycling. The activity you choose does not have to be strenuous to improve your cardiorespiratory endurance. Start slowly with an activity you enjoy, and gradually work up to a more strenuous pace.

Muscular Endurance
Muscular endurance is the ability of the muscles to continue to perform without fatigue (ACSM, 1996). To improve your muscular endurance, do cardiorespiratory activities such as walking, jogging, bicycling, or climbing.

Physical Activity for Everyone

Recommendations

What is "moderate-intensity" activity?
Moderate-intensity activities are those that require a moderate level of effort. These activities include walking briskly, swimming, and bicycling. These activities are those that require a moderate level of effort. These activities include walking briskly, swimming, and bicycling.

What is "vigorous-intensity" activity?
Vigorous-intensity activities are those that require a vigorous level of effort. These activities include running, swimming, and bicycling. These activities are those that require a vigorous level of effort. These activities include running, swimming, and bicycling.

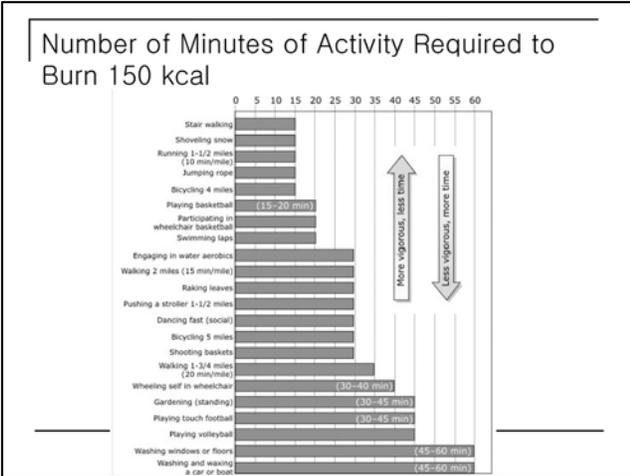
Physical Activity Recommendations

- Adults should engage in moderate-intensity physical activities for at least 30 minutes on 5 or more days of the week.
- OR
- Adults should engage in vigorous-intensity physical activity 3 or more days per week for 20 or more minutes per occasion.

Physical Activity Guidelines

If...	Then...
You do not currently engage in regular physical activity,	you should begin by incorporating a few minutes of physical activity into each day, gradually building up to 30 minutes or more of moderate-intensity activities.
You are now active, but at less than the recommended levels,	you should strive to adopt more consistent activity, <ul style="list-style-type: none"> moderate-intensity physical activity for 30 minutes or more on 5 or more days of the week, or vigorous-intensity physical activity for 20 minutes or more on 3 or more days of the week.
You currently engage in moderate-intensity activities for at least 30 minutes on 5 or more days of the week,	you may achieve even greater health benefits by increasing the time spent or intensity of those activities.
You currently regularly engage in vigorous-intensity activities 20 minutes or more on 3 or more days of the week,	you should continue to do so.

*Scientific evidence to date supports the statements above.



운동처방의 실례

- 운동종류
 - 걷기, 수영, 자전거타기
 - 근력운동: 아령, 팔굽혀펴기, 윗몸일으키기
- 운동강도
 - THR = 55-90% MHR
 - RPE 11-13
- 운동시간 : 30-60분
- 빈도 : 3~5회/주
- 운동순서 : 준비운동 - 본운동 - 정리운동
- 2~4주마다 feedback

결론

- Health Behaviors 실태 확인 - 운동 여부
- 운동동기, 운동 위험요인, 운동 상태
- 5A
 - Ask-Assess-Advise-Assist-Arrange
- 운동처방
 - Endurance, Strength, Flexibility
 - 종류, 강도, 시간, 빈도, 지속기간
- Monitor & Encouragement

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- <http://www.health.gov.au/internet/wcms/publishing.nsf/Content/health-publth-strateg-lifescrpts-index.htm>