# ENFERMEDAD CORONARIA ESTABLECIDA:

# ESTRATEGIAS Y OBJETIVOS DE CONTROL

Dra CARMEN DE PABLO Y ZARZOSA

## Un poco de historia…

# European guidelines on cardiovascular disease prevention in clinical practice

**Third Joint Task Force of European and other Societies on Cardiovascular Disease Prevention in Clinical Practice (constituted by representatives of eight societies and by invited experts).**

*De Backer G, Ambrosioni E, Borch-Johnsen K, Brotons C, Cifkova R, Dallongeville J, Ebrahim S, Faergeman O, Graham I, Mancia G, Cats VM, Orth-Gomer K, Perk J, Pyorala K, Rodicio JL, Sans S, Sansoy V, Sechtem U, Silber S, Thomsen T, Wood D; European Society of Cardiology Committee for Practice Guidelines.Related Articles,*

**Eur J Cardiovasc Prev Rehabil. 2003 Aug;10(4):S1-S10.**

# Guias Europeas de Prevención Cardiovascular en la práctica clínica

## OBJETIVO

Prevenir la discapacidad y la muerte prematura provocada por las enfermedades cardiovasculares, mediante cambios en el estilo de vida, correcto manejo de los factores de riesgo cardiovascular y, si fuese necesario el uso de medicamentos preventivos

# Prioridades de Prevención Cardiovacular en la Práctica Clínica

**Pacientes con enfermedad coronaria establecida, enfermedad arterial periférica y enfermedad cerebrovascular aterosclerotica.**

**Individuos asintomáticos con alto riesgo de desarrollar enfermedad cardiovascular aterosclerotica por presentar:**

* Multiples factores de riesgo que den lugar aun riesgo actual (o extrapolado a los 60 años de edad) > 5% de desarrollar un evento cardiovascular mortal a lo largo de 10 años
* Niveles marcadamente elevados de un único factor de riesgo: colesterol total > 8mmol/l (320 mg/dl), LDL-c > 6 mmol/l (240mg/dl), presión arterial >180/110
* Diabetes tipo 1 con microalbuminuria o Diabetes tipo 2.

**Familiares próximos de:**

* pacientes con enfermedad cardiovascular aterosclerótica de aparición precoz
* individuos asintomáticos de muy alto riesgo

**Otros individuos a los que se atiende en la práctica clínica habitual**

# Objetivos de prevención en pacientes con enfermedad cardiovascular establecida & sujetos de alto riesgo

- No fumar
- Dieta saludable
- Ejercicio físico habitual
- Indice de Masa Corporal < 25 kg/m2
- Presión Arterial < 140/90 mmHg, o < 130/80 mmHg en grupos específicos (*)
- Colesterol Total < 5mmol/l (190 mg/dl), o <4.5 mmol/l (175 mg/dl) en grupos específicos (*)
- LDL-c <3 mmol/l (115 mg/dl), o <2.5 mmol/l (100 mg/dl) en grupos específicos (*)
- Control de la glucemia en sangre en todos los diabéticos
- Considerar tratamiento con fármacos preventivos en algunos grupos específicos (*)

*(*) grupos específicos*

# Implications of recent clinical trials for the National Cholesterol Education Program Adult Treatment Panel III guidelines. *Circulation*. 2004;110:227–239.


* Cannon CP, et al. *N Engl J Med*. 2004;350:1495–1504.

* Heart Protection Study Collaborative Group. *Lancet*. 2002;360:7–22.

* PROspective Study of Pravastatin in the Elderly at Risk. PROSPER: a randomised controlled trial. *Lancet*. 2002;360:1623–1630.

* Antihypertensive and Lipid-Lowering Treatment to Prevent Heart Attack Trial (ALLHAT-LLT). *JAMA*. 2002;288:2998 –3007.

* Anglo-Scandinavian Cardiac Outcomes Trial–Lipid Lowering Arm (ASCOT-LLA): a multicentre randomised controlled trial. *Lancet*. 2003; 361:1149 –1158.

* Treating to New Targets (TNT) Investigators. Intensive lipid lowering with atorvastatin in patients with stable coronary disease. *N Engl J Med*. 2005;352: 1425–1435.

* Incremental Decrease in End Points Through Aggressive Lipid Lowering (IDEAL) Study Group. High-dose atorvastatin vs usual-dose simvastatin for secondary prevention after myocardial infarction: the IDEAL study: a randomized controlled trial. *JAMA*. 2005;294:2437–2445.


APLICACIÓN DE LAS GUÍAS DE PREVENCIÓN CARDIOVASCULAR EN LA PRÁCTICA CLÍNICA

# AHA/ACC Guideline

## AHA/ACC Guidelines for Secondary Prevention for Patients With Coronary and Other Atherosclerotic Vascular Disease: 2006 Update

*Endorsed by the National Heart, Lung, and Blood Institute*

Sidney C. Smith, Jr, MD; Jerilyn Allen, RN, ScD; Steven N. Blair, PED; Robert O. Bonow, MD; Lawrence M. Brass, MD†; Gregg C. Fonarow, MD; Scott M. Grundy, MD, PhD; Loren Hiratzka, MD; Daniel Jones, MD; Harlan M. Krumholz, MD; Lori Mosca, MD, PhD, MPH; Richard C. Pasternak, MD*; Thomas Pearson, MD, MPH, PhD; Marc A. Pfeffer, MD, PhD; Kathryn A. Taubert, PhD

*Circulation* 2006;113:2363-2372

APLICACIÓN DE LAS GUÍAS DE PREVENCIÓN CARDIOVASCULAR EN LA PRÁCTICA CLÍNICA

| | |
|---|---|
| **SMOKING:**<br>Goal<br>Complete cessation. No exposure to environmental tobacco smoke. | • Ask about tobacco use status at every visit. I (B)<br>• Advise every tobacco user to quit. I (B)<br>• Assess the tobacco user's willingness to quit. I (B)<br>• Assist by counseling and developing a plan for quitting. I (B)<br>• Arrange follow-up, referral to special programs, or pharmacotherapy (including nicotine replacement and bupropion). I (B)<br>• Urge avoidance of exposure to environmental tobacco smoke at work and home. I (B) |
| **BLOOD PRESSURE CONTROL:**<br>Goal<br><140/90 mm Hg<br>or<br><130/80 mm Hg if patient has diabetes or chronic kidney disease | For all patients:<br>• Initiate or maintain lifestyle modification—weight control; increased physical activity; alcohol moderation; sodium reduction; and emphasis on increased consumption of fresh fruits, vegetables, and low-fat dairy products. I (B)<br><br>For patients with blood pressure ≥140/90 mm Hg (or ≥130/80 mm Hg for individuals with chronic kidney disease or diabetes):<br>• As tolerated, add blood pressure medication, treating initially with β-blockers and/or ACE inhibitors, with addition of other drugs such as thiazides as needed to achieve goal blood pressure. I (A)<br>For compelling indications for individual drug classes in specific vascular diseases, see Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC 7).[4] |
| **LIPID MANAGEMENT:**<br>Goal<br>LDL-C <100 mg/dL<br>If triglycerides are ≥200 mg/dL, non-HDL-C should be <130 mg/dL† | For all patients:<br>• Start dietary therapy. Reduce intake of saturated fats (to <7% of total calories), trans-fatty acids, and cholesterol (to <200 mg/d). I (B)<br>• Adding plant stanol/sterols (2 g/d) and viscous fiber (>10 g/d) will further lower LDL-C.<br>• Promote daily physical activity and weight management. I (B)<br>• Encourage increased consumption of omega-3 fatty acids in the form of fish‡ or in capsule form (1 g/d) for risk reduction. For treatment of elevated triglycerides, higher doses are usually necessary for risk reduction. IIb (B)<br>For lipid management:<br>Assess fasting lipid profile in all patients, and within 24 hours of hospitalization for those with an acute cardiovascular or coronary event. For hospitalized patients, initiate lipid-lowering medication as recommended below before discharge according to the following schedule:<br>• LDL-C should be <100 mg/dL. I (A), and<br>• Further reduction of LDL-C to <70 mg/dL is reasonable. IIa (A)<br>• If baseline LDL-C is ≥100 mg/dL, initiate LDL-lowering drug therapy.§ I (A)<br>• If on-treatment LDL-C is ≥100 mg/dL, intensify LDL-lowering drug therapy (may require LDL-lowering drug combination‖). I (A)<br>• If baseline LDL-C is 70 to 100 mg/dL, it is reasonable to treat to LDL-C <70 mg/dL. IIa (B)<br>• If triglycerides are 200 to 499 mg/dL, non-HDL-C should be <130 mg/dL. I (B), and<br>• Further reduction of non-HDL-C to <100 mg/dL is reasonable. IIa (B)<br>• Therapeutic options to reduce non-HDL-C are:<br>⇒ More intense LDL-C–lowering therapy I (B), or<br>⇒ Niacin¶ (after LDL-C–lowering therapy) IIa (B), or<br>⇒ Fibrate therapy# (after LDL-C–lowering therapy) IIa (B)<br>• If triglycerides are ≥500 mg/dL‡, therapeutic options to prevent pancreatitis are fibrate¶ or niacin¶ before LDL-lowering therapy; and treat LDL-C to goal after triglyceride-lowering therapy. Achieve non-HDL-C <130 mg/dL if possible. I (C) |
| **PHYSICAL ACTIVITY:**<br>Goal<br>30 minutes, 7 days per week (minimum 5 days per week) | • For all patients, assess risk with a physical activity history and/or an exercise test, to guide prescription. I (B)<br>• For all patients, encourage 30 to 60 minutes of moderate-intensity aerobic activity, such as brisk walking, on most, preferably all, days of the week, supplemented by an increase in daily lifestyle activities (eg, walking breaks at work, gardening, household work). I (B)<br>• Encourage resistance training 2 days per week. IIb (C)<br>• Advise medically supervised programs for high-risk patients (eg, recent acute coronary syndrome or revascularization, heart failure). I (B) |
| **WEIGHT MANAGEMENT:**<br>Goal<br>Body mass index: 18.5 to 24.9 kg/m²<br>Waist circumference: men <40 inches, women <35 inches | • Assess body mass index and/or waist circumference on each visit and consistently encourage weight maintenance/reduction through an appropriate balance of physical activity, caloric intake, and formal behavioral programs when indicated to maintain/achieve a body mass index between 18.5 and 24.9 kg/m². I (B)<br>• If waist circumference (measured horizontally at the iliac crest) is ≥35 inches in women and ≥40 inches in men, initiate lifestyle changes and consider treatment strategies for metabolic syndrome as indicated. I (B)<br>• The initial goal of weight loss therapy should be to reduce body weight by approximately 10% from baseline. With success, further weight loss can be attempted if indicated through further assessment. I (B) |

| | |
|---|---|
| **DIABETES MANAGEMENT:**<br>Goal<br>$HbA_{1c}$ <7% | • Initiate lifestyle and pharmacotherapy to achieve near-normal $HbA_{1c}$. I (B)<br>• Begin vigorous modification of other risk factors (eg, physical activity, weight management, blood pressure control, and cholesterol management as recommended above). I (B)<br>• Coordinate diabetic care with patient's primary care physician or endocrinologist. I (C) |
| **ANTIPLATELET AGENTS/ ANTICOAGULANTS:** | • Start aspirin 75 to 162 mg/d and continue indefinitely in all patients unless contraindicated. I (A)<br>⇒ For patients undergoing coronary artery bypass grafting, aspirin should be started within 48 hours after surgery to reduce saphenous vein graft closure. Dosing regimens ranging from 100 to 325 mg/d appear to be efficacious. Doses higher than 162 mg/d can be continued for up to 1 year. I (B)<br>• Start and continue clopidogrel 75 mg/d in combination with aspirin for up to 12 months in patients after acute coronary syndrome or percutaneous coronary intervention with stent placement (≥1 month for bare metal stent, ≥3 months for sirolimus-eluting stent, and ≥6 months for paclitaxel-eluting stent). I (B)<br>⇒ Patients who have undergone percutaneous coronary intervention with stent placement should initially receive higher-dose aspirin at 325 mg/d for 1 month for bare metal stent, 3 months for sirolimus-eluting stent, and 6 months for paclitaxel-eluting stent. I (B)<br>• Manage warfarin to international normalized ratio=2.0 to 3.0 for paroxysmal or chronic atrial fibrillation or flutter, and in post–myocardial infarction patients when clinically indicated (eg, atrial fibrillation, left ventricular thrombus). I (A)<br>• Use of warfarin in conjunction with aspirin and/or clopidogrel is associated with increased risk of bleeding and should be monitored closely. I (B) |
| **RENIN-ANGIOTENSIN-ALDOSTERONE SYSTEM BLOCKERS:** | ACE inhibitors:<br>• Start and continue indefinitely in all patients with left ventricular ejection fraction ≤40% and in those with hypertension, diabetes, or chronic kidney disease, unless contraindicated. I (A)<br>• Consider for all other patients. I (B)<br>• Among lower-risk patients with normal left ventricular ejection fraction in whom cardiovascular risk factors are well controlled and revascularization has been performed, use of ACE inhibitors may be considered optional. IIa (B)<br>Angiotensin receptor blockers:<br>• Use in patients who are intolerant of ACE inhibitors and have heart failure or have had a myocardial infarction with left ventricular ejection fraction ≤40%. I (A)<br>• Consider in other patients who are ACE inhibitor intolerant. I (B)<br>• Consider use in combination with ACE inhibitors in systolic-dysfunction heart failure. IIb (B)<br>Aldosterone blockade:<br>• Use in post–myocardial infarction patients, without significant renal dysfunction** or hyperkalemia††, who are already receiving therapeutic doses of an ACE inhibitor and β-blocker, have a left ventricular ejection fraction ≤40%, and have either diabetes or heart failure. I (A) |
| **β-BLOCKERS:** | • Start and continue indefinitely in all patients who have had myocardial infarction, acute coronary syndrome, or left ventricular dysfunction with or without heart failure symptoms, unless contraindicated. I (A)<br>Consider chronic therapy for all other patients with coronary or other vascular disease or diabetes unless contraindicated. IIa (C) |
| **INFLUENZA VACCINATION:** | Patients with cardiovascular disease should have an influenza vaccination. I (B) |

*Patients covered by these guidelines include those with established coronary and other atherosclerotic vascular disease, including peripheral arterial disease, atherosclerotic aortic disease, and carotid artery disease. Treatment of patients whose only manifestation of cardiovascular risk is diabetes will be the topic of a separate AHA scientific statement. ACE indicates angiotensin-converting enzyme.

†Non-HDL-C = total cholesterol minus HDL-C.

‡Pregnant and lactating women should limit their intake of fish to minimize exposure to methylmercury.

§When LDL-lowering medications are used, obtain at least a 30% to 40% reduction in LDL-C levels. If LDL-C <70 mg/dL is the chosen target, consider drug titration to achieve this level to minimize side effects and cost. When LDL-C <70 mg/dL is not achievable because of high baseline LDL-C levels, it generally is possible to achieve reductions of >50% in LDL-C levels by either statins or LDL-C–lowering drug combinations.

‖Standard dose of statin with ezetimibe, bile acid sequestrant, or niacin.

¶The combination of high-dose statin+fibrate can increase risk for severe myopathy. Statin doses should be kept relatively low with this combination. Dietary supplement niacin must not be used as a substitute for prescription niacin.

#Patients with very high triglycerides should not consume alcohol. The use of bile acid sequestrant is relatively contraindicated when triglycerides are >200 mg/dL.

**Creatinine should be <2.5 mg/dL in men and <2.0 mg/dL in women.

††Potassium should be <5.0 mEq/L.

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# AHA/ACC Guidelines for Secondary Prevention for Patients With Coronary and Other Atherosclerotic Vascular Disease: 2006

* No fumar
* Dieta saludable
* Ejercicio físico habitual: 30 min / día x 7 días
* Indice de Masa Corporal < 25 kg/m2
  Perímetro abdominal <102 cm en hobres y <88 cm en mujeres
* Presión Arterial < 140/90 mmHg, o < 130/80 mmHg en insuficiencia renal crónica y DM
* LDL-c <100 mg/dl, siendo razonable llegar a < 70 mg/dl en grupos específicos
* Control de la glucemia en sangre en todos los diabéticos: HbA <7%
* Considerar tratamiento con fármacos preventivos:
  Ac a salicilico / Clopidogrel / Anticoagulantes
  Betabloqueantes
  IECAS / ARA II / Antialdosteronicos

| | |
|---|---|
| **ANTIPLATELET AGENTS/ ANTICOAGULANTS:** | • Start aspirin 75 to 162 mg/d and continue indefinitely in all patients unless contraindicated. I (A)<br>⇒ For patients undergoing coronary artery bypass grafting, aspirin should be started within 48 hours after surgery to reduce saphenous vein graft closure. Dosing regimens ranging from 100 to 325 mg/d appear to be efficacious. Doses higher than 162 mg/d can be continued for up to 1 year. I (B)<br>• Start and continue clopidogrel 75 mg/d in combination with aspirin for up to 12 months in patients after acute coronary syndrome or percutaneous coronary intervention with stent placement (≥1 month for bare metal stent, ≥3 months for sirolimus-eluting stent, and ≥6 months for paclitaxel-eluting stent). I (B)<br>⇒ Patients who have undergone percutaneous coronary intervention with stent placement should initially receive higher-dose aspirin at 325 mg/d for 1 month for bare metal stent, 3 months for sirolimus-eluting stent, and 6 months for paclitaxel-eluting stent. I (B)<br>• Manage warfarin to international normalized ratio = 2.0 to 3.0 for paroxysmal or chronic atrial fibrillation or flutter, and in post–myocardial infarction patients when clinically indicated (eg, atrial fibrillation, left ventricular thrombus). I (A)<br>• Use of warfarin in conjunction with aspirin and/or clopidogrel is associated with increased risk of bleeding and should be monitored closely. I (B) |
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# ¿ COMO CONSEGUIR SU CUMPLIMIENTO ?

APLICACIÓN DE LAS GUÍAS DE PREVENCIÓN CARDIOVASCULAR EN LA PRÁCTICA CLÍNICA

## EUROASPIRE I, Eur Heart J 1997

* Alta prevalencia FRCV modificables

* Prioridad médica

## EUROASPIRE II, Eur Heart J 2001

- 21% Fumaban
- 50% No control TA
- 20% DM
- 31% Obesos
- 58% Colesterol elevado
- Farmacos: 90% Ac.a.salicilico
  66% Betabloqueantes
  38% Iecas
  43% Hipolipemiantes

**FALLO COLECTIVO EN LA PRACTICA MEDICA EUROPEA** (Lancet 2001)

APLICACIÓN DE LAS GUÍAS DE PREVENCIÓN CARDIOVASCULAR EN LA PRÁCTICA CLÍNICA

***¿HACEMOS UN BUEN CONTROL DE FACTORES DE RIESGO EN PREVENCION SECUNDARIA?***

* en el ALTA HOSPITALARIA ?

en la CONSULTA MEDICO FAMILIA ?

en la CONSULTA CARDIOLOGO?

***¿RECOMENDAMOS HACER EJERCICIO FISICO EN PREVENCION SECUNDARIA?***

* De forma GENERAL: "*debe usted caminar"....*

* TIPO de ejercicio, FRECUENCIA E INTENSIDAD

* BENEFICIOS DEL EJERCICIO

***¿CONTROLAMOS A LOS PACIENTES DESDE EL PUNTO DE VISTA PSICOLOGICO?***

ANSIEDAD: en la fase aguda ¿DESPUES?

DEPRESION, CONDUCTA TIPO A, ESTRÉS

***¿NOS IMPLICAMOS EN LA REINCORPORACION AL TRABAJO TRAS UN EPISODIO CARDIOVASCULAR?***

***¿CUMPLIMOS LOS OBJETIVOS FARMACOLOGICOS RECOMENDADOS ?***

# REHABILITACION CARDIACA:
## *Un poco de historia...*

" Conjunto de actividades necesidades para asegurar a los cardiópatas unas condiciones físicas, mentales y sociales óptimas, que les permitan ocupar por sus propios medios, un lugar tan normal como sea posible en la Sociedad, llevando una vida activa y productiva".

OMS, 1964

## AHA Scientific Statement

# Cardiac Rehabilitation and Secondary Prevention of Coronary Heart Disease

## An American Heart Association Scientific Statement From the Council on Clinical Cardiology (Subcommittee on Exercise, Cardiac Rehabilitation, and Prevention) and the Council on Nutrition, Physical Activity, and Metabolism (Subcommittee on Physical Activity), in Collaboration With the American Association of Cardiovascular and Pulmonary Rehabilitation

Arthur S. Leon, MD, MS, Chair; Barry A. Franklin, PhD; Fernando Costa, MD; Gary J. Balady, MD; Kathy A. Berra, MSN, ANP; Kerry J. Stewart, EdD; Paul D. Thompson, MD; Mark A. Williams, PhD; Michael S. Lauer, MD

***Abstract***—This article updates the 1994 American Heart Association scientific statement on cardiac rehabilitation. It provides a review of recommended components for an effective cardiac rehabilitation/secondary prevention program, alternative ways to deliver these services, recommended future research directions, and the rationale for each component of the rehabilitation/secondary prevention program, with emphasis on the exercise training component. (***Circulation.*** **2005;111:369-376.)**

APLICACIÓN DE LAS GUÍAS DE PREVENCIÓN CARDIOVASCULAR EN LA PRÁCTICA CLÍNICA

# REHABILITACION CARDIACA: *OBJETIVOS*

REHABILITACION CARDIACA

→ MEJORAR CALIDAD VIDA

→ MEJORAR PRONOSTICO DISMINUYENDO MORBIMORTALIDAD

- Entrenamiento Físico
- Control de Factores de Riesgo
- Actuación Psicológica
- Programa Educativo
- Valoración sociolaboral
- Tratamiento Farmacológico

# REHABILITACION CARDIACA: *INDICACIONES ACTUALES*

EN CARDIOPATAS:

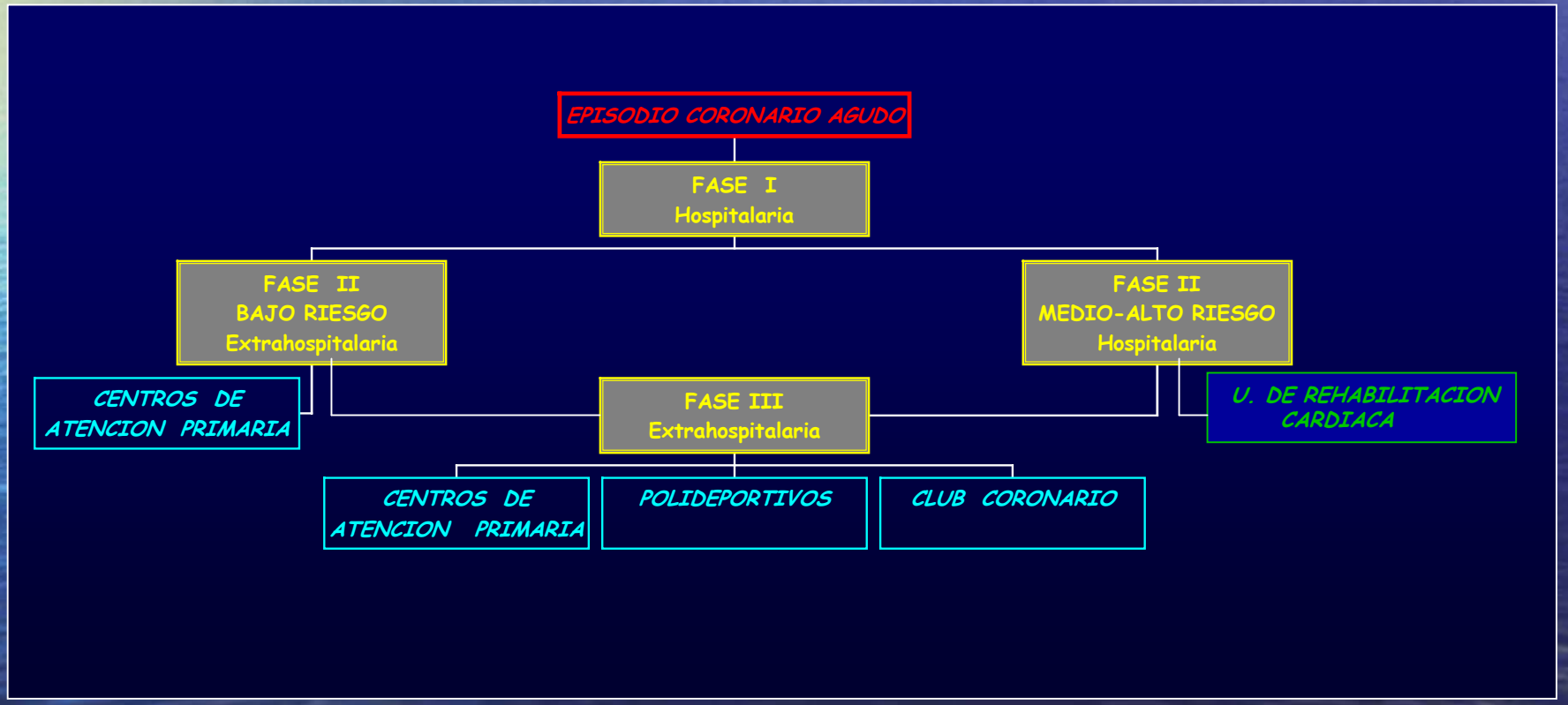
1-CARDIOPATIA ISQUEMICA: * Infarto miocardio
* Revascularización quirúrgica
* ACTP-Stent
* Angina crónica estable

2- TRASPLANTE CARDIACO
3- INSUFICIENCIA CARDIACA
4- VALVULOPATIAS OPERADAS
5- CONGENITAS OPERADAS
6-ARTERIOPATIA PERIFERICA
7- MARCAPASOS O DESFIBRILADORES

EN SUJETOS SANOS:

1- ALTO RIESGO POR FACTORES DE RIESGO
2- EDAD MEDIA QUE INICIAN ACTIVIDAD DEPORTIVA

# REHABILITACION CARDIACA



# REHABILITACION CARDIACA

## BAJO RIESGO

* Curso hospitalario sin complicaciones
* Ausencia de signos de isquemia miocárdica
* Capa
* Frac
* Ause

severa

## MEDIO RIESGO

* Presencia de angina
* Positividad en la ergometría a partir del min 5 (Bruce)
* Capacidad Funcional entre 5-6 9 METs
* Defectos reversib
* Fracción de eyecc

## ALTO RIESGO

* Infarto previo
* Respuesta hipotensiva al esfuerzo
* Capacidad funcional < 5 METs con respuesta hipotensiva o depresión del ST > 1 mm
* Depresión del ST > 2 mm a niveles de frecuencia cardiaca < 135 por minuto
* Fracción de eyección < 35%
* Presencia de arrítmias ventriculares severas

# AREA SANITARIA 4. COMUNIDAD DE MADRID

600.000 habitantes
















11 CENTROS DE SALUD  2 AMBULATORIOS  1 POLIDEPORTIVO MUNICIPAL

# PROGRAMA DE REHABILITACION CARDIACA .HOSPITAL RAMON Y CAJAL

## 1.-ACTUACION FISICA

hospital (3 días a la semana)





5 días/semana



## SUBUNIDADES

### A.-Tabaquismo

1 cardióloga
1 médico rehabilitador
1 enfermera
2 psicólogas

### B.-Lípidos

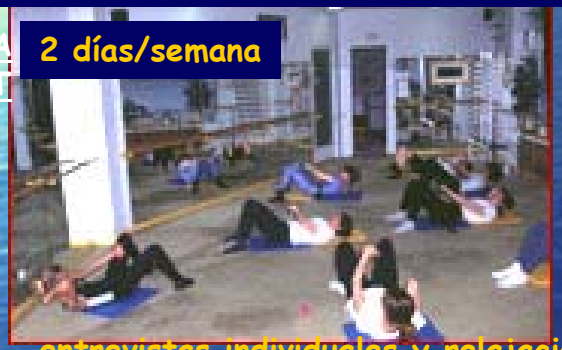
1 cardióloga
1 enfermera

### B.-Disfunción eréctil

1 cardiólogo
1 psiquiatra
1 urólogo (andrólogo)
1 enfermera

## 2.-ACTUACION PSICOLOGICA

2 días/semana



a) entrevistas individuales y relajación
b) Terapia de grupo (jueves)



## 4.-ESTUDIO SOCIOLABORAL



## 3)CHARLAS-COLOQUIO



# REHABILITACION CARDIACA

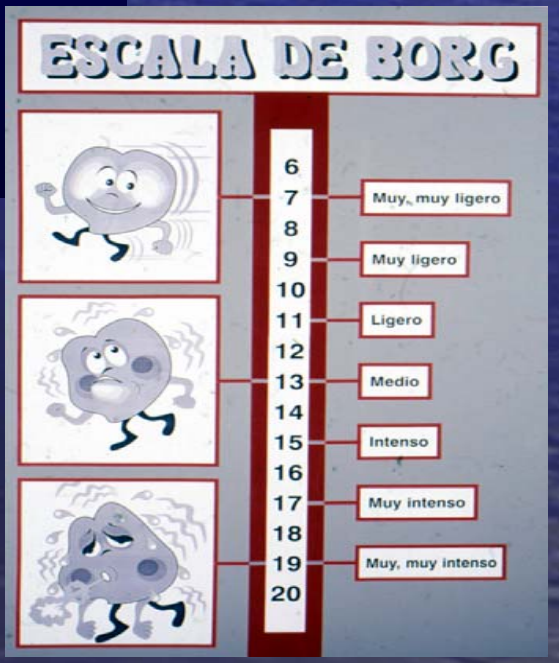
* **Vigilancia durante el programa**

*(Americam Association for Cardiovascular and Pulmonary Rehabilitation, 1999)*

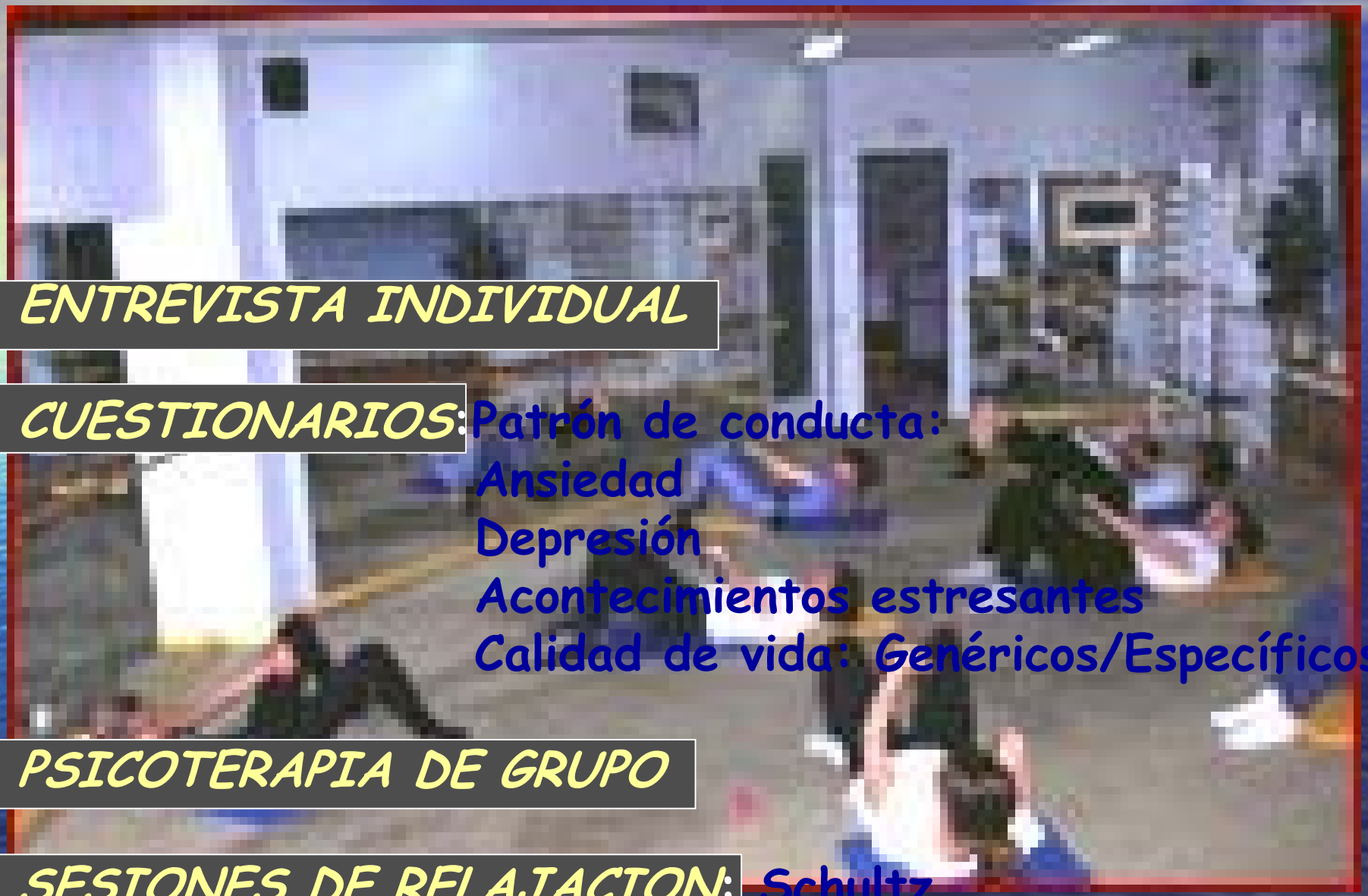
- Telemetría
- Control hemodinámico
- FCEntrenamiento
- Escala de Borg







# ACTUACION PSICOLOGICA:



* ENTREVISTA INDIVIDUAL

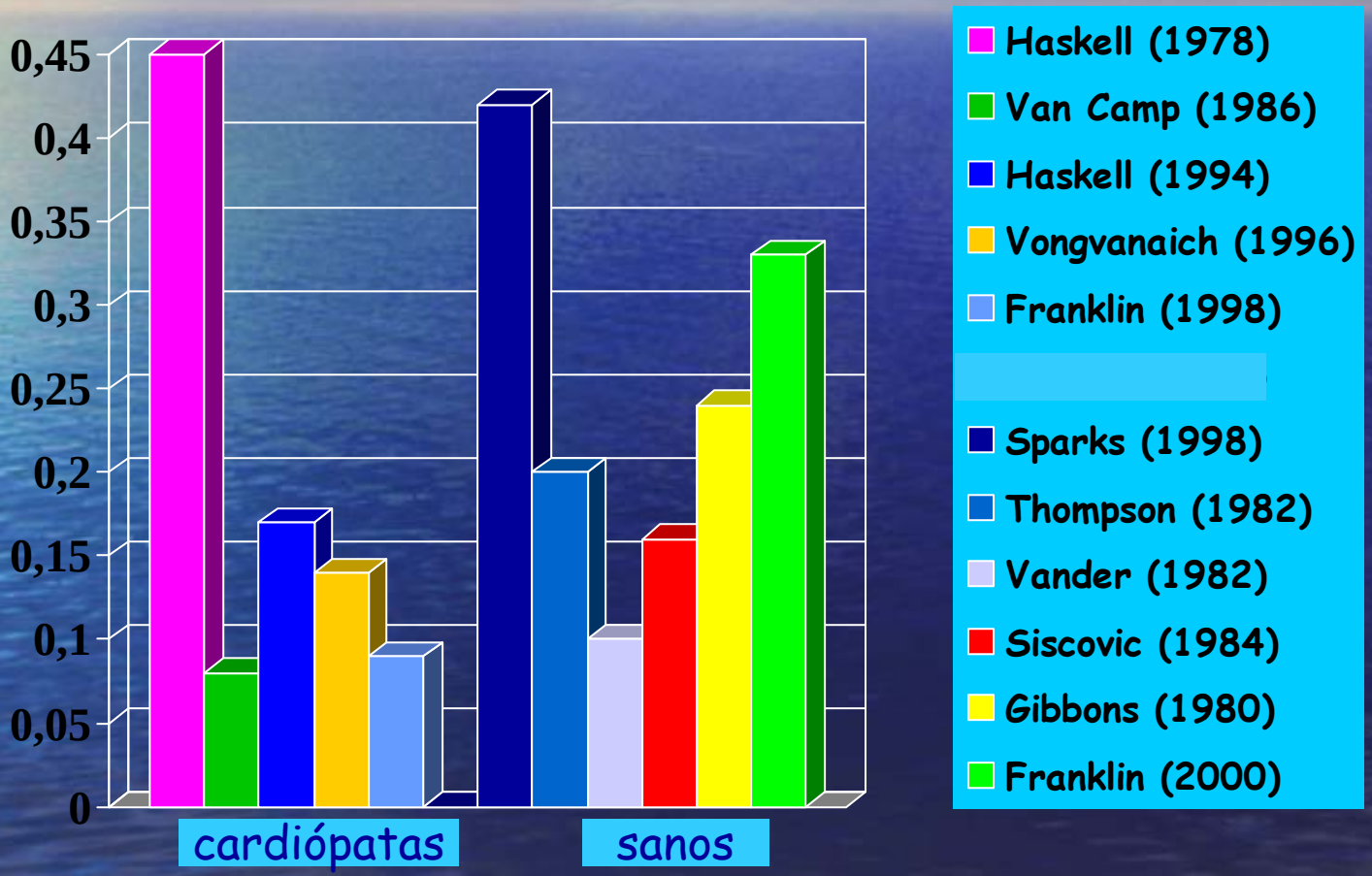
* CUESTIONARIOS: Patrón de conducta:
  Ansiedad
  Depresión
  Acontecimientos estresantes
  Calidad de vida: Genéricos/Específicos

* PSICOTERAPIA DE GRUPO

* SESIONES DE RELAJACION: Schultz
  Jakonson

# Complicaciones / 10000 horas

C. Foster, J.P. Porcari. The risks of exercise training. JCR 2001; 21: 347-352



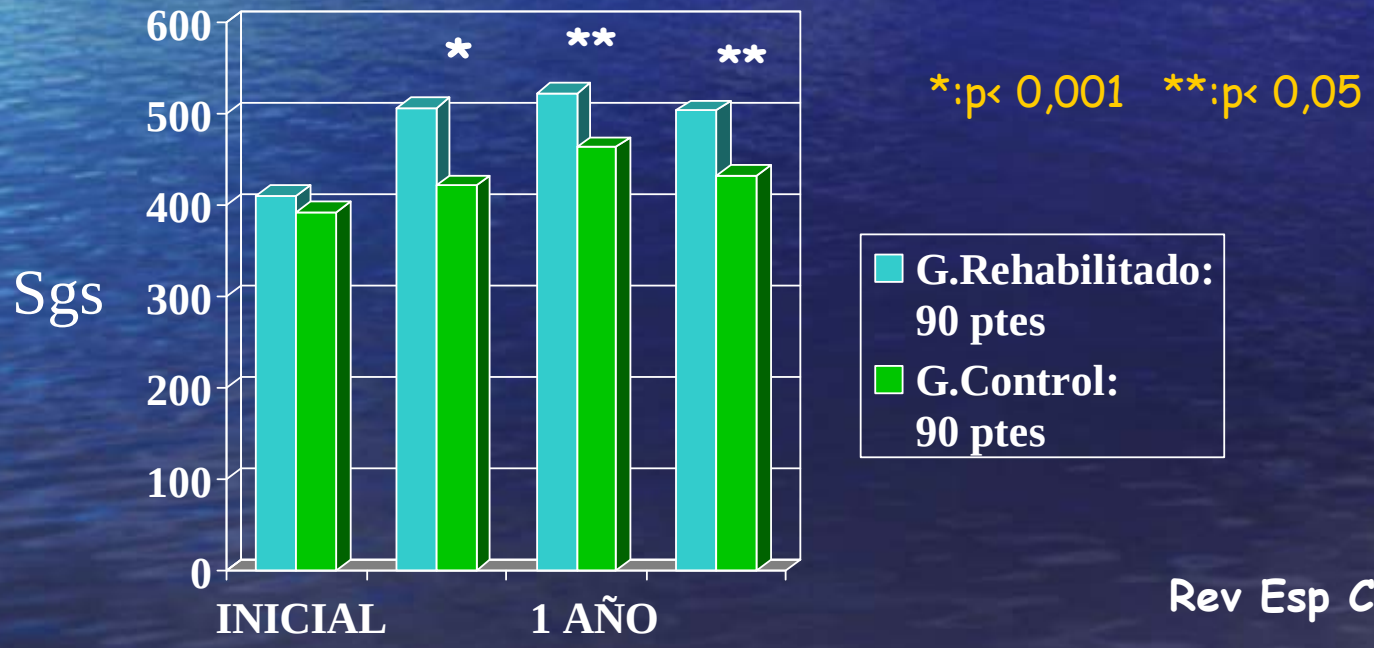
# REHABILITACION CARDIA
## IMPACTO DE LAS ACTUACIONES

| | CALIDAD DE VIDA | PRONOSTICO |
|---|---|---|
| FACTORES DE RIESGO | + | +++ |
| ENTRENAMIENTO FISICO | +++ | +++ |
| ACTUACION PSICOLOGICA | +++ | ++ |
| FARMACOS | ++ | +++ |

# CAPACIDAD FUNCIONAL

EL ENTRENAMIENTO FISICO MEJORA DE FORMA SIGNIFICATIVA LA CAPACIDAD FUNCIONAL, EN TODAS LAS PERSONAS, INDEPENDIENTEMENTE DE LA EDAD Y EL SEXO

AUMENTO CONSUMO MAXIMO OXIGENO

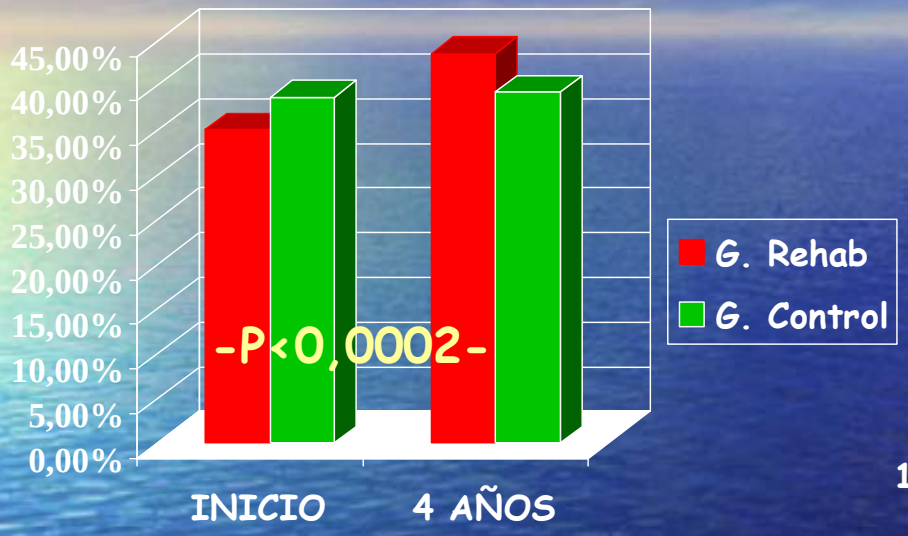



*:p< 0,001 **:p< 0,05

Rev Esp Cardiol, 1996

# REHABILITACION CARDIACA: *CONTROL FACTORES RIESGO*

Rev Esp Cardiol,1990




HDL-Colesterol

Tabaco



# REHABILITACION CORONARIA
## RESULTADOS A NIVEL PSICOLOGICO

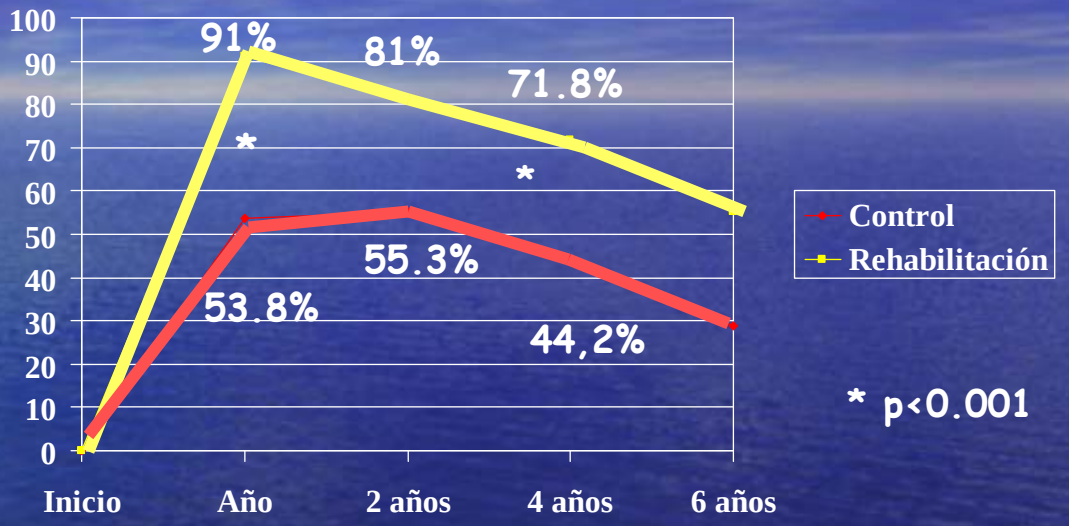
DESCENSO SIGNIFICATIVO DE

| | | ansiedad | depresión | tipo A |
|---|---|---|---|---|
| NEHDP | Arch Int Med,1981 | * | * | |
| CSMC | Baltimore,1979 | * | * | |
| HRyC | Rev Esp Cardiol,1990 | * | * | * |

NEHDP:National Exercise and Heart Disease Project; CSMC: Cedars Sinai Medical Center; HRyC: Hospital Ramón y Cajal

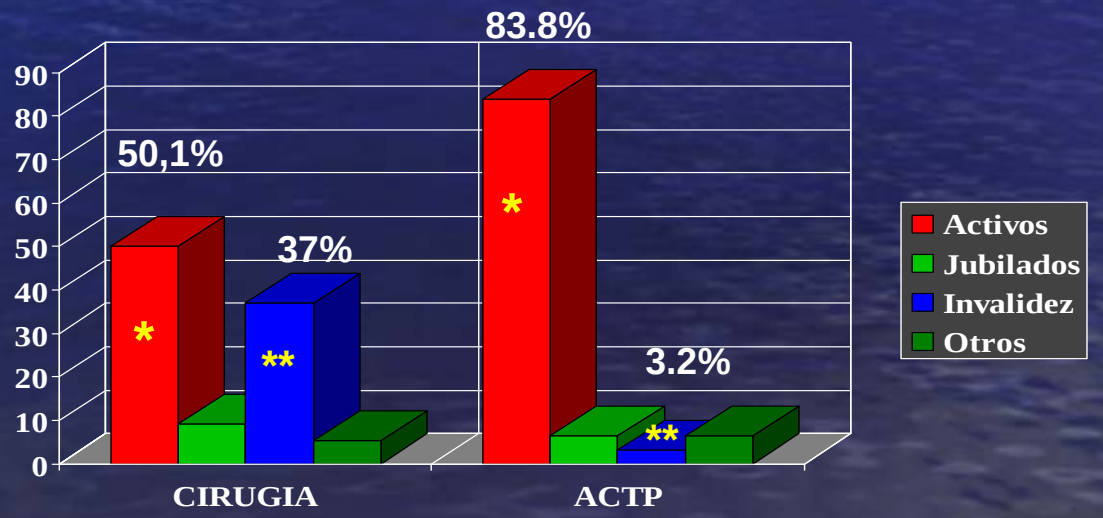
# REHABILITACION CARDIACA: *RESULTADOS*

## INCORPORACION LABORAL TRAS INFARTO AGUDO MIOCARDIO




* p<0.001

## INCORPORACION LABORAL TRAS REVASCULARIZACION




* p<0.002
** p<0.0004

# Exercise-based rehabilitation...coronary heart disease...meta-analysis of.....

Taylor et al. Am J Med 2004;116:682-692

48 estudios (1970-2003)  8940 pacientes

** Descenso significativo en:
mortalidad cardiovascular y total
colesterol total, triglicéridos y tensión arterial sistólica

** No diferencias significativas en:
reinfartos, necesidad de revascularización,
HDL-C, LDL-C y tensión arterial diastólica

(5 metaanálisis)

# ESTUDIOS ALEATORIZADOS QUE DEMUESTRAN UN DESCENSO SIGNIFICATIVO EN LA MORTALIDAD CON LOS PROGRAMAS DE REHABILITACION CARDIACA

* Kallio JA et al. Lancet,1979 (a los 3 años)

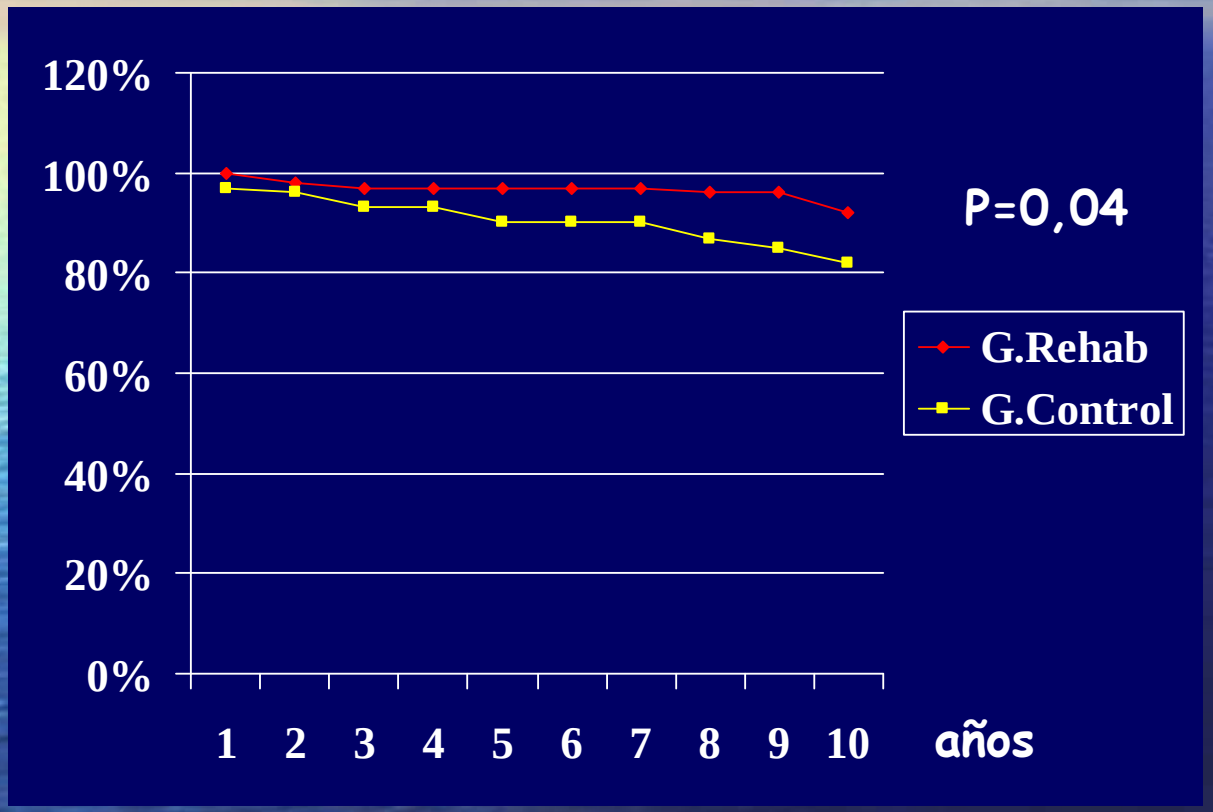
* Hammalainen H et al, Eur Heart J 1989 (a los 10 años), Eur Heart J,1995 (a los 15 años).

* Hedback P y col. Eur Heart J, 1987 ( a los 5 años) y Eur Heart J,1993 (a los 10 años)

* Maroto JM y col. Rev Esp Cardiol, 2005 ( a los 10 años)

# REHABILITACION CORONARIA

## Supervivencia ( Curvas de Kaplan-Meier )




- Descenso del 56,5% en la mortalidad total (p = 0,04)
- Descenso del 50,4% en la mortalidad CV (p = n. s. )
- Descenso significativo en: complicaciones totales, insuficiencia cardiaca, angina inestable, cirugía coronaria

Maroto JM y col. Rehabilitación cardíaca en pacientes con Infarto de miocardio. Resultados tras 10 años de seguimiento Rev Esp Cardiol. 2005;58:1181-1187.


APLICACIÓN
DE LAS GUÍAS
DE PREVENCIÓN
CARDIOVASCULAR
EN LA PRÁCTICA
CLÍNICA