EVALUACION ESTANDARIZADA DE LA ACTIVIDAD FISICA

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INTRODUCCION

- **A. F:** Mantenimiento de la salud y función efectiva.
- Actividad física (**A . F**) puede en un momento ser sinónimo de funcionamiento físico (**F. F**).
- El cambio en el **F. F**, repercute en la calidad de vida.
- Pérdidas incluso discretas en la **A . F / F. F**, pueden generar discapacidad y dependencia.
- La prevención se fundamenta en la identificación: **TECNICAS Y MEDIDAS**

INTRODUCCION



Fried y Reuben, 2003

INTRODUCCION



Fried, 2003; Reuben, 2003

CONTEXTUALIZACION DE A . F / F .F

Complejidad jerárquica y progresiva

Movimientos específicos
Con un fín

Deterioro

Actividades
Complejas y Secuenciales
Que permitan
Un
rol social u ocupacional

Capacidad

Guralnik & Ferrucci, 2003.

DETERIORO DE A. F / F. F SEGÚN NAGI

PASO 1
Inicio de la enfermedad

PASO 2
Enfermedad clínica

PASO 3
Limitación funcional

PASO 4
Discapacidad
(Pérdida de Roles)

El objetivo de la prevención es no detectar
Las personas en Paso 4 sino antes de que
Alcanzen estadíos avanzados del modelo de NAGI
O sea LA DISCAPACIDAD PRECLINICA

Guralnik & Ferrucci, 2003.

MODELO DE HALTER Y REUBEN

La Capacidad está constituida por una serie de Bloques en orden jerárquico



Halter y Reuben, 2001.

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Halter y Reuben, 2001.

MODELO DE HALTER Y REUBEN

FUNCION COGNITIVA
FUNCION AFECTIVA

Halter y Reuben, 2001.

MEDICION

Todos lo anterior es medible y evaluable

Autorreporte

Escalas de funcionamiento
A nivel físico, instrumental
Y avanzado

Medición objetiva

Medidas de evaluación
Basadas en la ejecución
Y otras escalas

Sutters y Seeman, 2004.

MEDICION POR AUTOREPORTE

Escala de Katz, 1963.

Escala de Barthel

Escala de Lawton y Brody, 1969.

Escala de Rosow y Breslaw, 1966.

Escalas de Nagi, 1991.

Sutters y Seeman, 2004.

MEDICION OBJETIVABLE

Mitad superior del cuerpo

Test de la OMS
Para rango de
Movimiento del
hombro

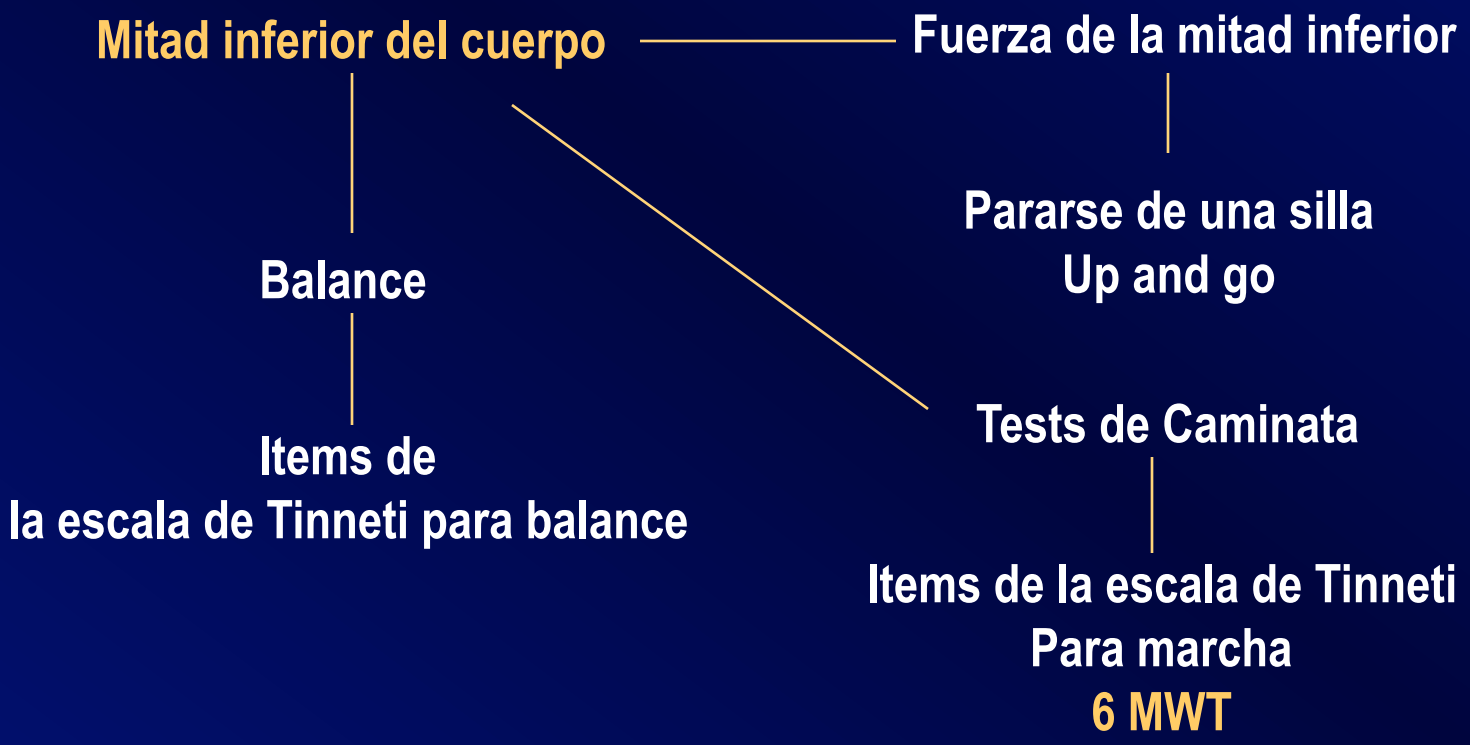
Dominancia manual

Escriba el nombre
Escriba una oración
Botonarse la camisa
Recoger un objeto
Utilizar cubiertos
Pegboard Test
Test de Williams

Fuerza de Agarre / test de fuerza manual

Sutters y Seeman, 2004.

MEDICION OBJETIVABLE



Sutters y Seeman, 2004.

Walking		
6-minute walk distance	0.90	high
EPESE 10-foot walk	0.59	high
Rapid 10-foot walk	0.57	high
Balance		
EPESE leg stands		
Single leg	0.69	medium
Semitandem	ND	low
Full tandem	0.22	low
Side-by-side	ND	low
National Health and Nutrition Examination Survey		
Firm, eyes open	ND	low
Firm, eyes closed	ND	low
Foam, eyes open	0.71	medium
Foam, eyes closed	0.26	medium
Balance platform (log mean × speed)		
Firm, eyes open	0.46	high
Firm, eyes closed	0.53	high
Foam, eyes open	0.65	high
Foam, eyes closed	0.71	high
Strength		
Handgrip (handheld dynamometer)	0.95	high
Strength chair (maximal)		
Elbow extension	0.91	high
Elbow flexion	0.96	high
Handgrip	0.96	high
Knee extension	0.92	high
Knee flexion	0.88	high
EPESE timed chair stands		
5 stands	0.80	high
10 stands	0.84	high

EPESE = Established Populations for Epidemiologic Studies of the Elderly; ND = reliability coefficient not defined, 100% passed in both tests; high = large distribution of results among participants; medium = only two results possible, but many participants in each category; low = only two results possible and all or nearly all participants got same result.

Performance-Based Measures of Physical Function

JAGS 54:737–742, 2006

Table 2. Proposed Performance Battery

Performance Test	Duration of Test
Unassisted single-leg stand	3 minutes
Balance platform "foam pad, eyes closed" test	2 minutes
Elbow flexion and knee extension strength measured using the strength chair	8 minutes
Grip strength with strength OR	4 minutes
Handheld dynamometer (reasonable alternative in some cases)	3 minutes
Timed 10 chair stands	2 minutes
6-minute walk	8 minutes
Rapid 10-foot walk	1 minute

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Physical Performance Measures in the Clinical Setting

Stephanie Studenski, MD, MPH,† Subashan Perera, PhD,*‡ Dennis Wallace, PhD,‡‖ Julie M. Chandler, PhD, PT,¶ Pamela W. Duncan, PhD, PT,*§ Earl Rooney, MD, MHA,†#†† Michael Fox, ScD,*§ and Jack M. Guralnik, MD, PhD***

JAGS 51:314–322, 2003

EPESE

VELOCIDAD DE LA MARCHA

Physical and Performance Measures for the Identification of Mild to Moderate Frailty

Journal of Gerontology: MEDICAL SCIENCES
2000, Vol. 55A, No. 6, M350–M355

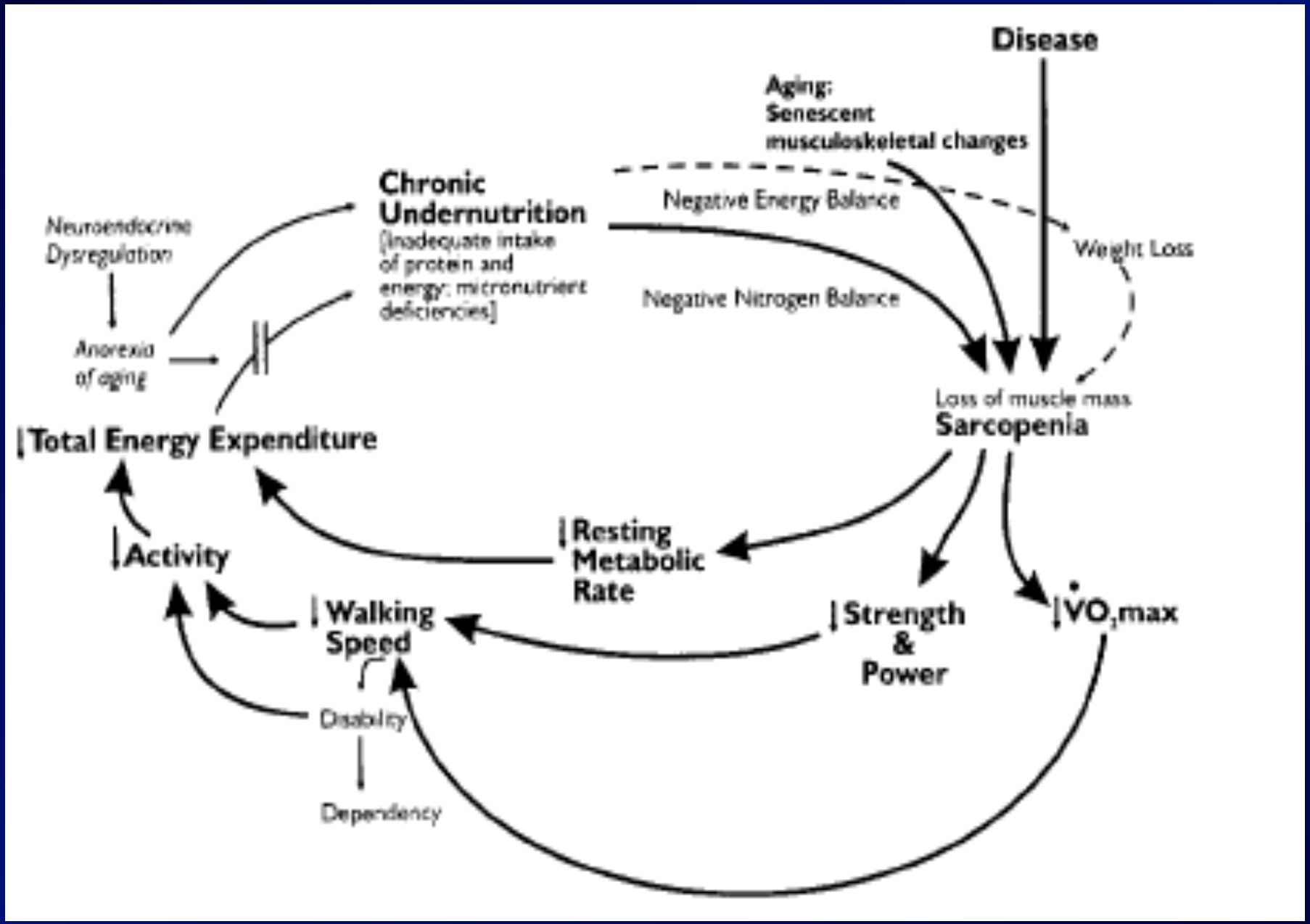
Table 1. Modified Physical Performance Test Items

1. Book lift. An ~7-lb book is lifted from waist height to a shelf ~12 in above shoulder level. Scores are based on the time required to complete the task.
2. Put on and take off a coat. Subjects put on and take off a standard lab coat of appropriate size as quickly as able. Scores are based on the time required to complete this item.
3. Pick up penny. Subjects pick up as quickly as possible a penny that is located ~12 in in front of the foot. Scores are based on the time required to complete the task.
4. Chair rise. Subjects sit in a chair that has a seat height of 16 in. They then stand fully and sit back down, without using the hands, five times, as quickly as possible.
5. Turn 360°. Participants turn both clockwise and counterclockwise quickly but safely. They are subjectively graded on steadiness and ability to produce continuous turning movement.
6. 50-ft. walk. Subjects walk 25 ft in a straight line, turn, and return to the initial starting place as quickly as possible, safely.
7. One flight of stairs. The time required to ascend 10 steps.
8. Four flights of stairs. Participants climb four flights of stairs. One point is given for each flight of stairs completed.
9. Progressive Romberg test. Subjects are scored according to their ability to maintain a reduced base of support: feet together, semitandem, and full tandem, for a maximum of 10 seconds.

FUERZA DE AGARRE

CSHA

1. Muy buen estado: Robusto, activo, enérgico, buena motivación.
2. Buen estado: Sin enfermedad activa, menos ajuste que categoría anterior.
3. Buen estado con enfermedad tratada, síntomas controlados.
4. Aparentemente vulnerable: con síntomas de enfermedad, enlentecido.
5. Levemente fragil: compromiso de las IADL.
6. Moderadamente fragil: necesita ayuda para las IADL y PADL.
7. Severamente frágil: Dependencia total.


Disease
Aging:
Senescent
musculoskeletal changes
Chronic
Undernutrition
(Inadequate intake
of protein and
energy; micronutrient
deficiencies)
Negative Energy Balance
Weight Loss
Neuroendocrine
Dysregulation
Negative Nitrogen Balance
Anorexia
of aging
Loss of muscle mass
Sarcopenia
↓Total Energy Expenditure
↓Activity
↓Resting
Metabolic
Rate
↓Walking
Speed
↓Strength
&
Power
↓$\dot{V}O_2$max
Disability
Dependency

