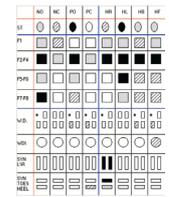


Tetrax Balance Assessment Quick Guide

TETRAX

Tetrax balance assessment is designed to help the physician or other medical specialist analyze each patient's balance abilities and decide on a course of therapy or treatment to improve these abilities. This quick guide is designed to provide the physician with a basic understanding of Tetrax results - which are portrayed in the Postural Summary Sheet and the Fall Index. Read the entire sheet and then follow the numbered steps on the reverse page. For a comprehensive description of Tetrax results, consult the Tetrax Physician's Guide.



Postural Summary Sheet

Tetrax Measurement Positions

The Tetrax software is designed to measure balance at a number of different positions, as follows:

Position	Utility
Facing forward, eyes open	Normal position, used for comparisons
Facing forward, eyes closed	Limits visual cues
Facing forward, eyes open, standing on pillows	Limits somato-sensory cues
Facing forward, eyes closed, standing on pillows	Limits visual and somato-sensory cues
Head turned to right, eyes closed	Sensitive to vestibular issues, particularly unilateral
Head turned to left, eyes closed	Sensitive to vestibular issues, particularly unilateral
Head bent backwards, chin up, eyes closed	Sensitive to central and vestibulo-cervical issues
Head leaning forward onto chest, eyes closed	Sensitive to cervical issues

Postural Summary Sheet General Patterns

Aberrations: Consistent aberrations in all positions may indicate an orthopedic or neurological handicap of one of the lower extremities.

Differences between right and left: Consistently poor performance in the right (HR, HL, HB, HF) side of the summary sheet compared to the positions on the left (NO, NC, PO, PC) may indicate a cervical vestibular disturbance.

Differences between top and bottom of summary sheet: A poor performance on the upper half may indicate a vestibular, somato-sensory problem, or central nervous problem, while poor performance on the lower half may indicate an orthopedic problem.

Poor results: Consistently poor results in all positions for all parameters is likely to indicate a pervasive problem of the lower extremities or a serious central nervous pathology.

Inconsistencies: Inconsistent responses in one or more particular positions, while other positions are normal, may result from a misstep or faulty measurement. Repeat the test.

Tetrax Measurement Parameters

The Tetrax software produces the following result parameters for each of the measurement positions. Each parameter is expressed in terms of comparison to the mean, in units of standard deviation (SD). A normal result (shown as a white icon) is 1.0 SDs below the mean to 1.5 above; larger deviations are marked with progressively darker icons, as seen in the legend of the Postural Summary Sheet on the reverse.

General stability (ST)	Indicates general stability and ability to compensate for problems
Fourier transformation Low frequencies (F1)	Abnormally high values may be related to visual dysfunction
Fourier transformation Low medium frequencies (F2-F4)	Abnormally high values may be related to peripheral vestibular difficulties
Fourier transformation High medium frequencies (F5-F6)	Abnormally high values may be related to somato-sensory dysfunction
Fourier transformation High frequencies (F7-F8)	Abnormally high values may be related to central difficulties
Weight Distribution (W.D.)	Significant discrepancy from equal weight distribution (25% of weight on each plate) may be related to orthopedic problems
Weight Distribution Index (WDI)	Abnormally high values may be related to orthopedic and/or neurological problems; Abnormally low values may be related to postural rigidity (stiffness)
Right/Left Synchronization (SYN L R)	Abnormal synchronizations may be related to problems of coordination between foot parts due to orthopedic or neurological disorders
Toes/Heel Synchronization (SYN TOES HEEL)	Abnormal synchronizations may be related to problems of coordination between foot parts due to orthopedic or neurological disorders
Fall Index (comprehensive result, based on results in all positions)	Indicates the likelihood that the patient will fall, with higher values indicating a greater chance of falling

Measurement Positions

Postural Summary Sheet

Measurement Parameters

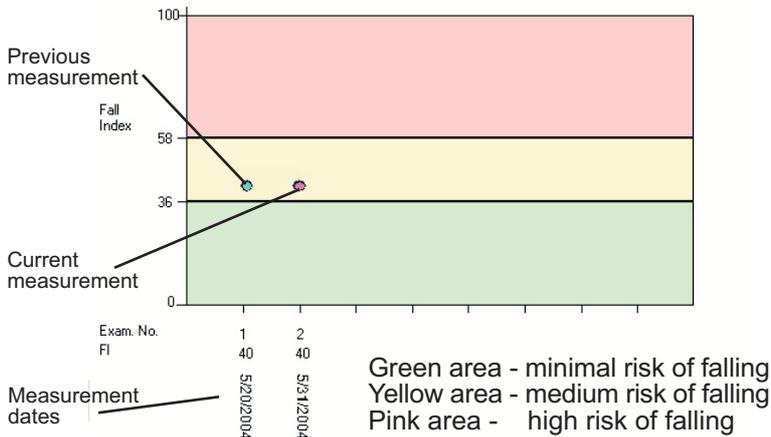
	NO	NC	PO	PC	HR	HL	HB	HF
ST								
F1								
F2-F4								
F5-F6								
F7-F8								
W.D.	*		*	*	*		*	*
W.D.I								
SYN L/R								
SYN TOES HEEL								

Postural Summary Sheet Legend

- 1.0 standard deviations below the mean to 1.5 above
- 1.5 to 3.0 standard deviations above the mean
- 3.0 to 6.0 standard deviations above the mean
- Over 6.0 standard deviations above the mean
- * 1.0 or more standard deviations below the mean

Fall Index Graph

Risk of Fall Assessment



Measurement and Result Procedure

1. Measure the patient at all 8 positions.
2. Bring up the Postural Summary screen or print out the Postural Summary Sheet.
3. Analyze the summary sheet according to the General Patterns and Measurement Parameters boxes on the previous page.
4. Bring up the Fall Index screen or print out the Fall Index graph.
5. Note the Fall Index as described in the Fall Index Graph box on this page.
6. Treat the patient, based on his balance problems and risk of falling, as indicated by Tetrax results, along with risk factors and other issues at the physician's discretion.