

How to Understand your 1-Page Golf BioDynamics 3D Report

The 1-page Golf BioDynamics 3D Report is the easiest to understand version of our 3D reports. As we guide you through an example report you may notice that the 'numbers' are actually taken from Jim McLean's own GBD 3D Report.

Throughout the GBD 3D Report you will notice that your numbers, located in the far right hand column, are all colour coded. These numbers are an average of the swings collected during the session. If they are green they fall within our "ideal" corridor; yellow they are very close to ideal and finally red means that they fall outside of the ideal corridor. Don't be discouraged by a few red numbers! They help direct us to the problem areas in your swing.

The first section contains important information on your address position:

- How well you aligned your hips and shoulders to the target and
- How much did you tilt your upper body to the right (for a right handed golfer).

The second section reports on key parameters defining a good backswing:

- How far did you turn your hips and shoulders?
- Your X-Factor or the difference between your hip and shoulder turns at the top. McLean showed how important a good X-Factor was for power development. It can also be a indicator of rotational flexibility through the trunk—losing flexibility in trunk rotation can lose you distance off the tee.

The third section tells us a few things about the dynamics of your golf swing. This information cannot be picked up from video alone. It includes:

- Your body speeds—how fast do you move your hips, shoulders, arm and hands. The faster these body segments move, ultimately the higher your club head speed. Slow down one of these segments and it will impact the next one in the chain. Reviewing these body speeds can also help us to identify "power leaks" in the system.
- The X-Factor Stretch—is a measure of how well the hips lead out at the start of the downswing. This stretch is an important variable in the power equation and gives insight into coordination. X-Factor Stretch may be low for numerous reasons and the cause of the problem should be investigated in order to assist you in developing a more efficient golf swing.
- The Downswing Timing sequence is presented as a graph and it can be viewed as a measure of your swing efficiency. Ideally it should appear like a staircase with the speed of the hips peaking first, then the shoulders, followed by the arm and finally the hands. Each successive peak should be higher than the previous one. Thus, speed in the system builds as you go from the core to the periphery.

In summary, the more values we find closer to our ideal corridors the more likely you are to demonstrate swing technique that results in a repeatable and powerful golf swing. Our role is to assist you in working towards that goal.

We look forward to working alongside you, and hope your GBD 3D Report will assist you in your journey towards a better golf swing!

The Golf BioDynamics Team

3D Golf BioDynamics Swing Analysis

First Name: Jim **Last Name:** McLean **Test Type:** Initial Test

Date: 02-Aug-2010 **Email:**

Mass: 172 lbs **Height:** 6.0' **Handicap:** Pro/Instructor

Jim's hips and shoulders are well aligned and within the ideal corridor. The upper torso tilt shows us his right shoulder is slightly lower than his left at address.

UT is an abbreviation for upper torso or 'shoulders'.

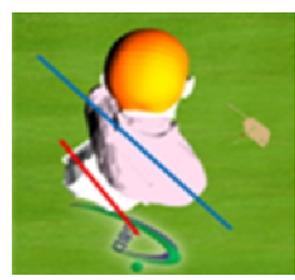
Age, height and sex are important as they determine the ideal corridors for our golfer.

Alignment	Corridor	You
Hip Address	0 to 8°	4 Open
UT Address	5 to 12°	9 Open
UT Tilt	7 to 13°	9 Right

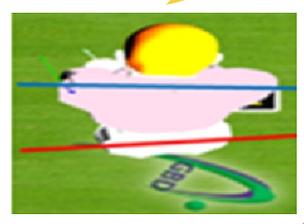
Top of Backwing	Corridor	You
Hip Turn	-40 to -54°	-45 Closed
UT Turn	-82 to -98°	-84 Closed
X-Factor	-40 to -50°	-40 Closed

Timing & Sequence	Corridor	You
Max Hip Speed	>=400°/s	434
Max UT Speed	>=550°/s	725
Max Arm Speed	>=780°/s	816
Max Hand Speed	>=1300°/s	1,452
X-Factor Stretch	-10° to -25°	-10

Green = Good Yellow = be wary Red = well out of ideal range

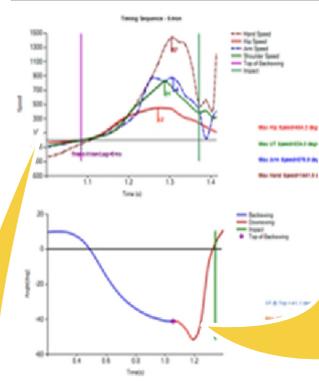


These pictures are generic but taken directly from the GBD software to help illustrate the body position that match the "numbers".



Remember that the UT Turn - Hip Turn = X-Factor.

Great Timing Sequence



This 'X-Factor Stretch' occurs in the first part of the downswing as Jim's hips lead out, creating a greater differential between the hips and the shoulders — it is very important for power generation in the golf swing.

Jim exhibits very good body speeds! They are all green numbers.

Generating a good X-Factor and X-Stretch are keys for power!

This graph shows the downswing timing sequence or the order in which the peak speeds of the body segments occur. Ideally we see hips first, then UT, arm and finally hands. In Jim's case the hands are too early.