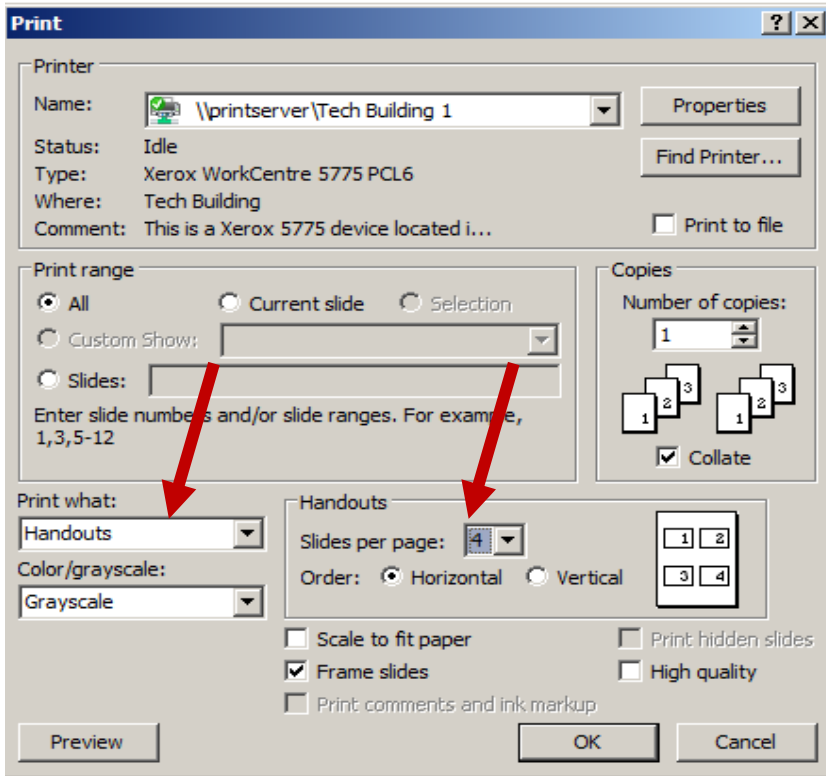


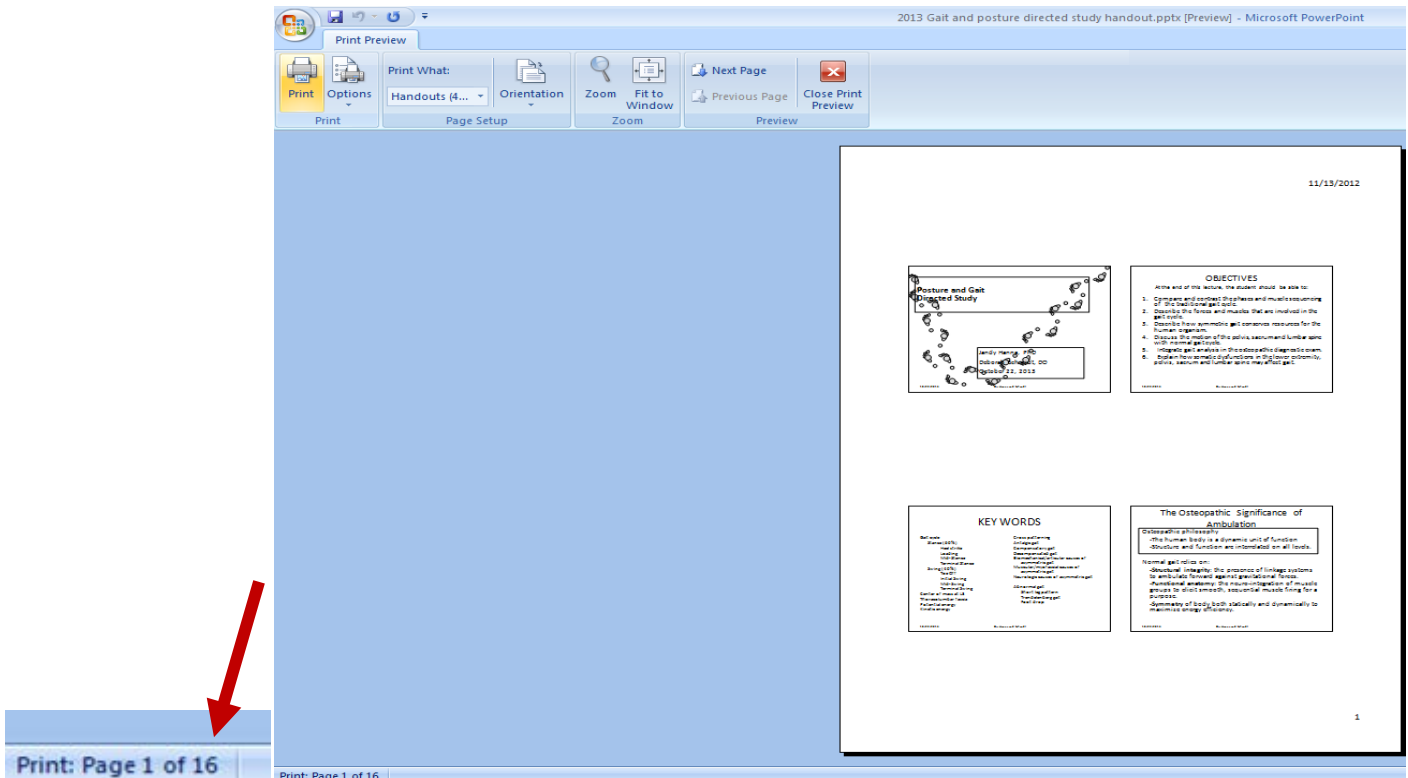
The purpose of this document is to illustrate the printer page count results when printing a 63 slide PowerPoint presentation using various print settings.

**Example 1 – Print as a Handout**

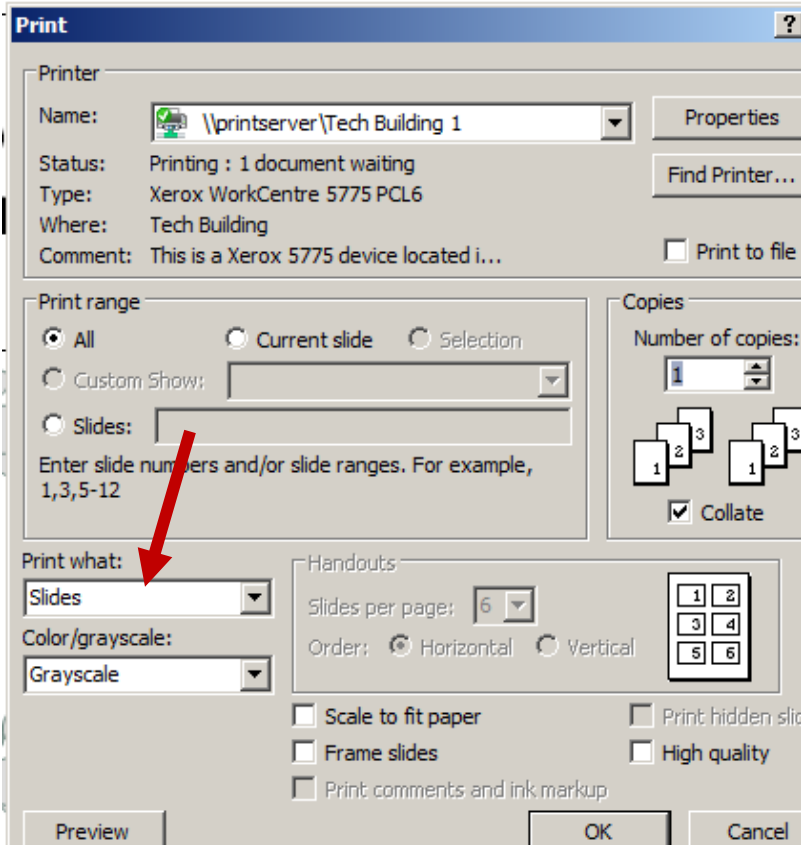
Under Handouts Setting, Slides per page: 4    Print double sided\duplex



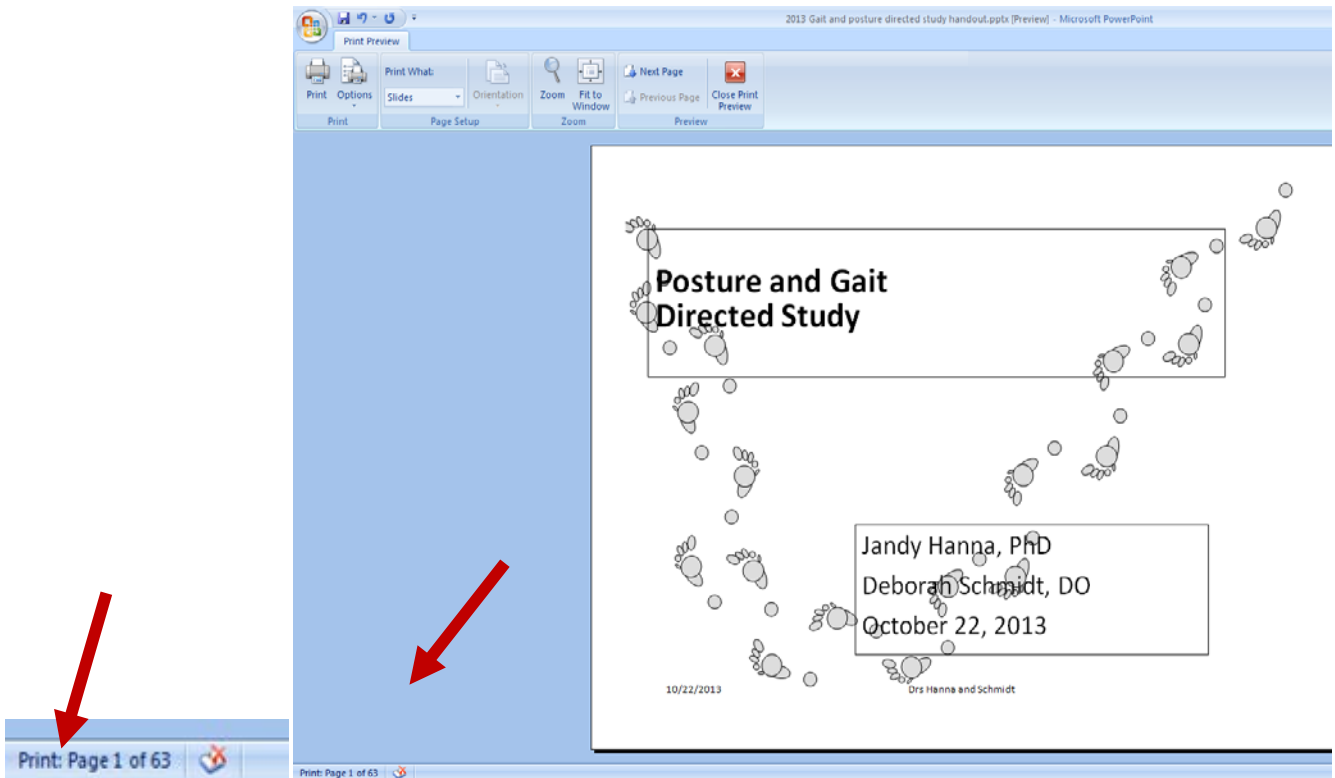
**Print Preview Results = 16 Pages**



**Example 2 – Print as Slides** Handouts option is grayed out with no option of placing multiple slides on one page  
Print double sided\duplex



**Print Preview Results = 63 Pages**

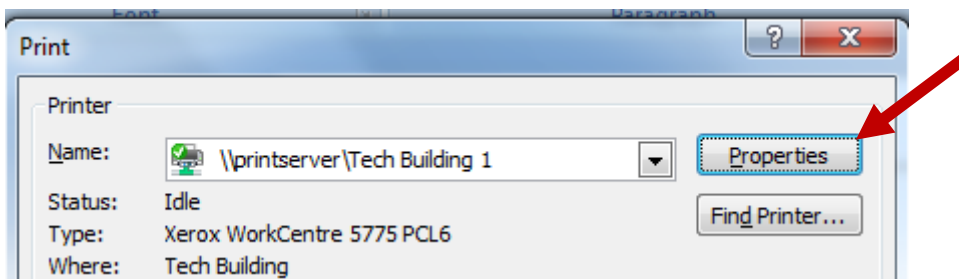


The full 63 page presentation was not sent to the printer in order to save paper and toner so therefore the print job is not shown on the Print Log Report but had it been printed the page count would be 63. When printing 4 slides per page as handouts the Print Log Report shows 16 pages total.

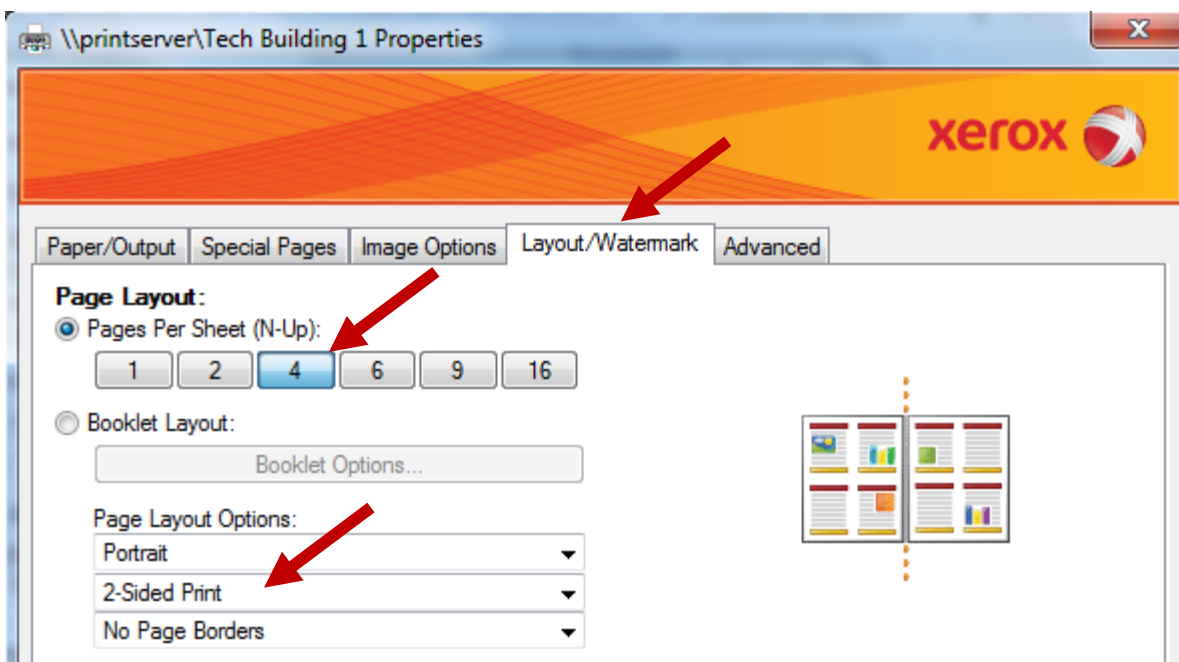
Time	User	Pages	Copies	Printer	Document Name	Client	Paper Size	Duplex
11/7/2013 14:36	samstudent	16	1	Tech Building 1	Microsoft PowerPoint - 2013 Gait and posture directed study handout.pptx	WVSOM2016205	Letter	DUPLEX

A disadvantage of printing multiple slides as handouts is the size of the slides as shown in Example 1. Therefore an alternative method of printing is to allow the print settings to be controlled by the printer as illustrated in Example 3 below.

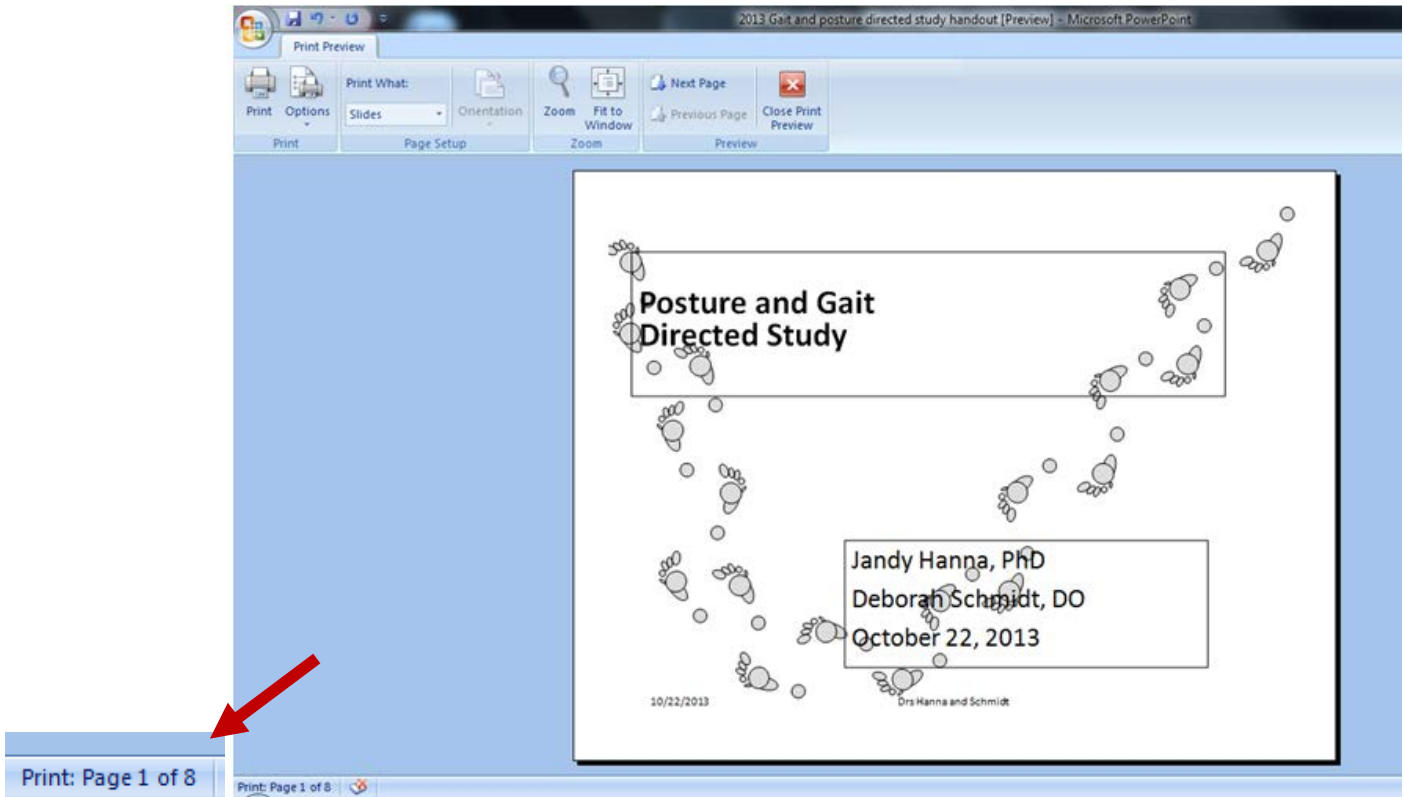
**Example 3 – Printing 4 Slides Per Page by Allowing the Printer to Control the Output. Select Print and Properties**



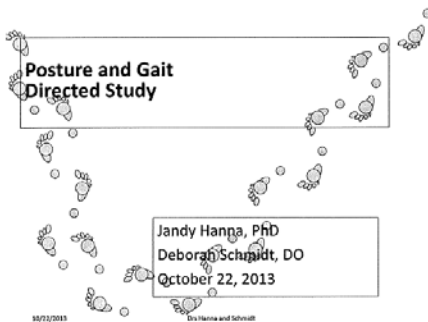
Select the Layout\Watermark Tab, Select Pages Per Sheet (N-Up) and the desired number (4 in this example), and Page Layout Options select 2-Sided Print



**Print Preview Results** = When selecting to print using this method Print Preview will not be accurate. In this example only 8 of the 63 slides were sent to the printer for a total of 2 pages with 4 slides per side, but Print Preview shows this as 8 pages instead of 2.



This printing method produces larger slides per page.



### OBJECTIVES

At the end of this lecture, the student should be able to:

1. Compare and contrast the phases and muscle sequencing of the traditional gait cycle.
2. Describe the forces and muscles that are involved in the gait cycle.
3. Describe how symmetric gait conserves resources for the human organism.
4. Discuss the motion of the pelvis, sacrum and lumbar spine with normal gait cycle.
5. Integrate gait analysis in the osteopathic diagnostic exam.
6. Explain how somatic dysfunctions in the lower extremity, pelvis, sacrum and lumbar spine may affect gait.

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### The Osteopathic Significance of Ambulation

Osteopathic philosophy  
 -The human body is a dynamic unit of function  
 -Structure and function are interrelated on all levels.

Normal gait relies on:  
 -**Structural integrity:** the presence of linkage systems to ambulate forward against gravitational forces.  
 -**Functional anatomy:** the neuro-integration of muscle groups to elicit smooth, sequential muscle firing for a purpose.  
 -**Symmetry** of body both statically and dynamically to maximize energy efficiency.

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### KEY WORDS

- |                      |   |
|----------------------|---|
| Gait cycle           | Cross patterning                                  |
| Stance (60%)         | Antalgic gait                                     |
| Heel strike          | Compensatory gait                                 |
| Loading              | Decompensated gait                                |
| Mid-Stance           | Biomechanical/articular causes of asymmetric gait |
| Terminal Stance      | Muscular/myofascial causes of asymmetric gait     |
| Swing (40%)          | Neurologic causes of asymmetric gait              |
| Toe Off              |   |
| Initial Swing        | Abnormal gait                                     |
| Mid-Swing            | Short leg pattern                                 |
| Terminal Swing       | Trendelenberg gait                                |
| Center of mass at L3 | Foot drop   |
| Thoracolumbar fascia |   |
| Potential energy     |   |
| Kinetic energy       |   |

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The results of the Print Log Report correctly show 2 pages after printing the 8 slides. If the entire presentation had been printed the results would have been 16 pages.

Time	User	Pages	Copies	Printer	Document Name	Client	Paper Size	Duplex
1/13/2014 9:51	samstudent	1	1	Tech Building 1	Test Page	10.125.8.157	Letter	NOT DUPLEX
1/13/2014 9:52	samstudent	2	1	Tech Building 1	Microsoft PowerPoint - 2013 Gait and posture directed study handout	10.125.8.157	Letter	DUPLEX