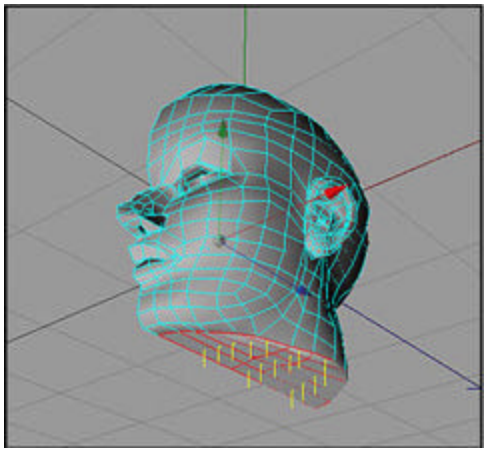
Support CINEMA 4D

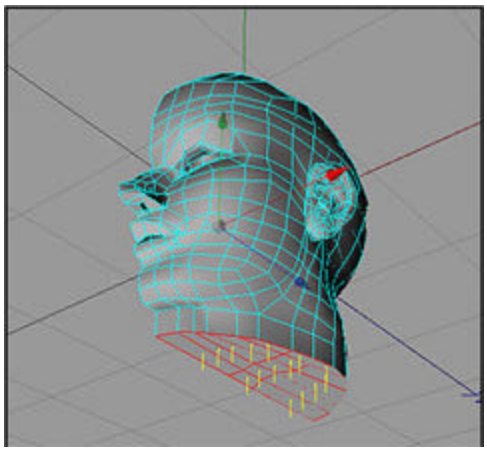
Project Based Tutorials - Human Modeling: Meissie

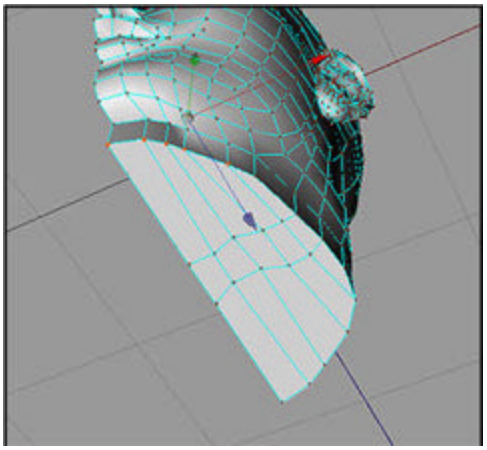
Human Modeling: Meissie: Modeling The Body	**Works with:**	**Requires:**
	XL	Version 6+

Step 1: Hide everything but your body (head) model in the View Panel. You're going to prepare the neck for the extrusion of the body. Select the 15 polygons at the bottom as shown.



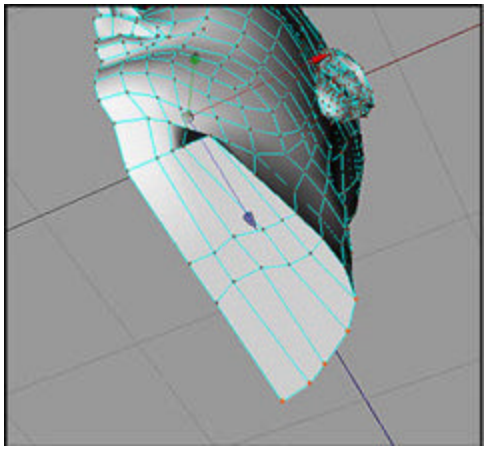
Step 2: In the Coordinates Manager set the Y Size to 0m. Next activate the Extrude Tool (Structure=>Extrude) and extrude the still selected polygons with an Offset value of 15m.

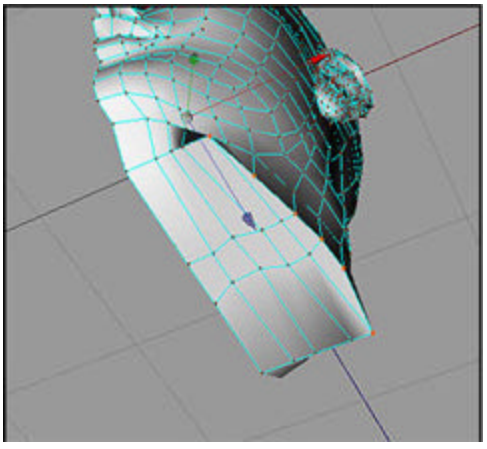




Step 3: Switch to the Points Tool (Tools=>Points) and select the five points as shown. In the Coordinates Manager set their Z Size to 0m.

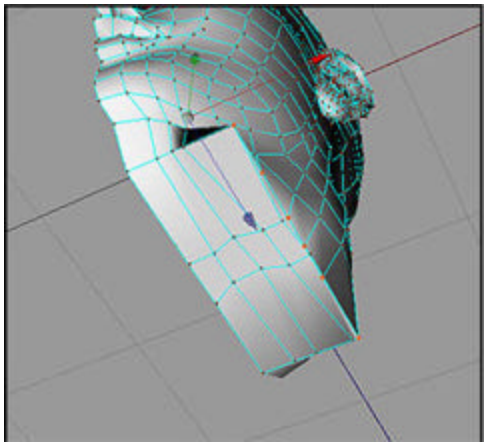
Step 4: Next select the five points in the back as shown.

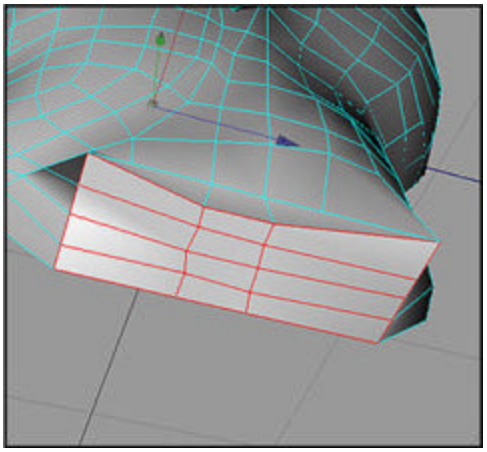




Step 5: In the Coordinates Manager set their Z Position to Z=0m. Next select the six points as shown.

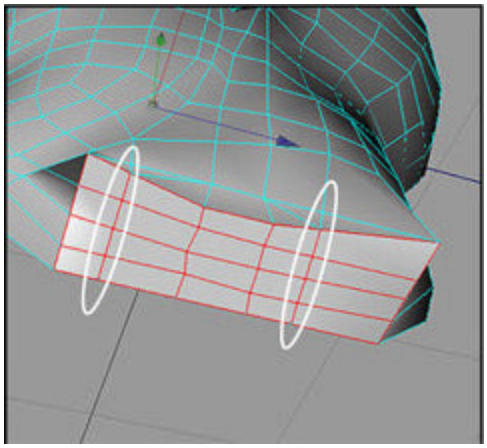
Step 6: In the Coordinates Manager set their X Position to X=0m. If necessary drag the points a bit to the right so they form the outer edge of the created rectangle.

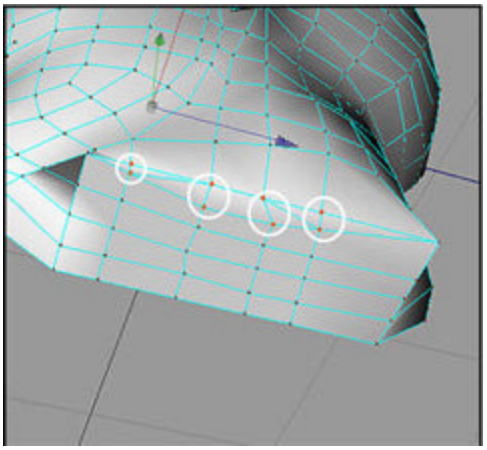




Step 7: Distribute the points more evenly in the X direction so you will get something like the picture shown. Switch to the Polygons Tool (Tools=>Polygons) and select the polygons as shown.

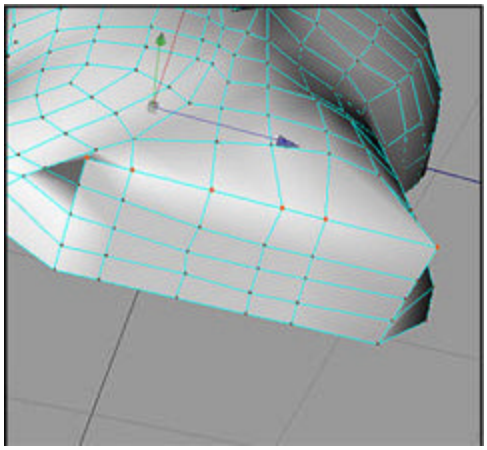
Step 8: Activate the Knife Tool (Structure=>Knife) and make two more cuts so they connect with their vertical counterparts.

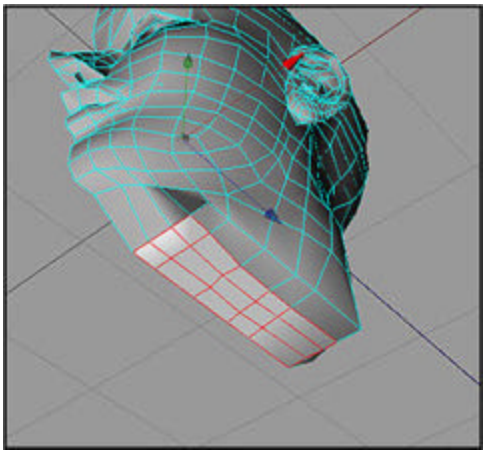




Step 9: In Points mode select the encircled sets of points one by one and Weld them (Structure=>Edit Surface=>Weld).

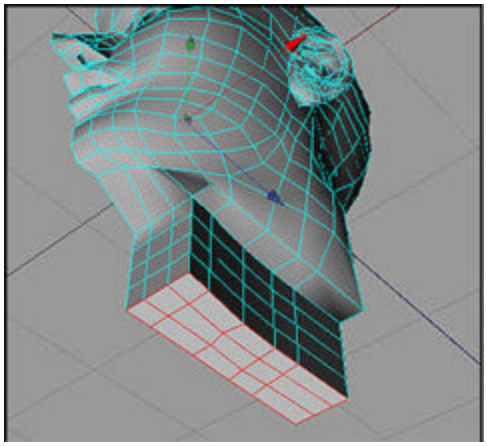
Step 10: Save yourself some work later on and line up all points of this bottom plane, something that was forgotten while taking these screenshots.

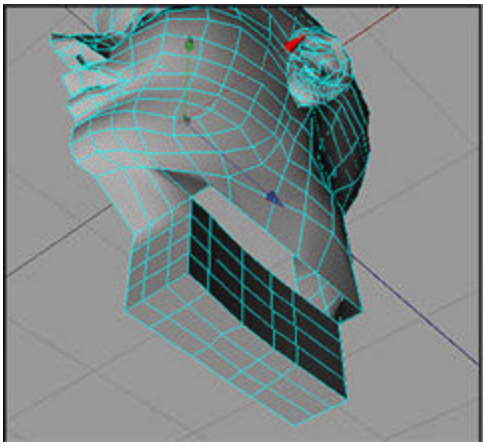




Step 11: Switch back to the Polygons Tool (Tools=>Polygons) and select the polygons as shown.

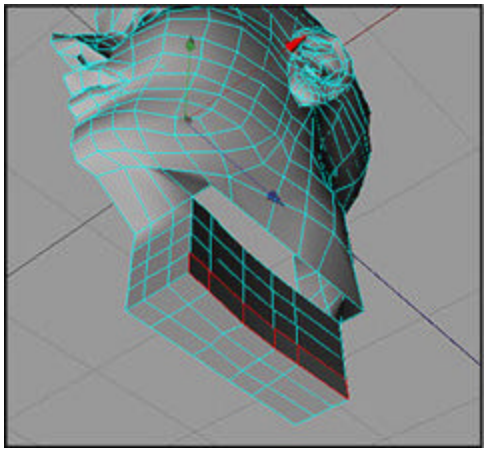
Step 12: Extrude (Structure=>Extrude) the selected polygons four times with an Offset of 15m in the Active Tool Manager.

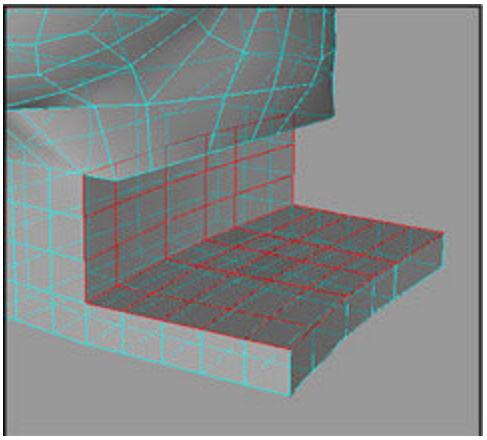




Step 13: Next select the ignored row of polygons and delete them.

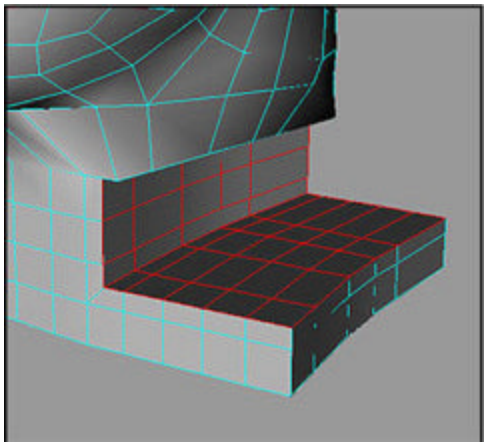
Step 14: Select the polygons as shown and use the Extrude Tool (Structure=>Extrude) to extrude them five times with an Offset of 15m.

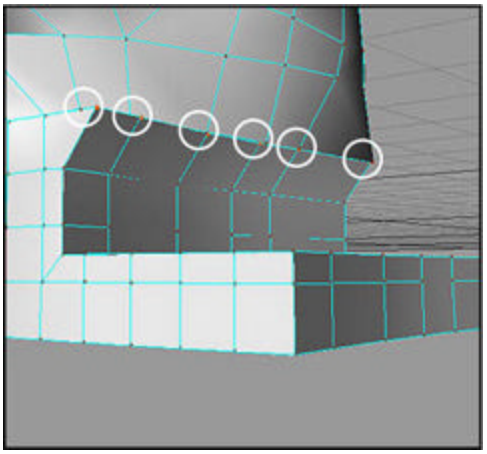




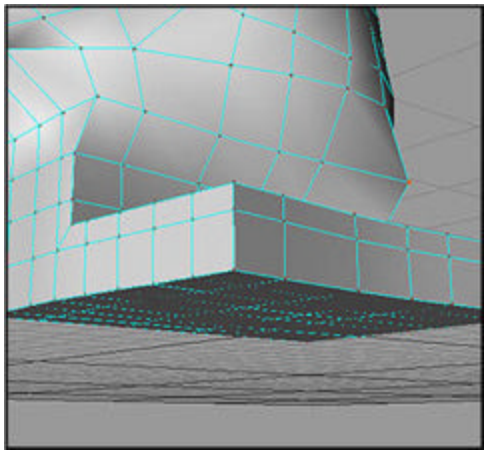
Step 15: Select the polygons as shown. Activate the Extrude Tool (Structure=>Extrude), and make sure the Maximum Angle is set to 180 degrees in the Active Tool Manager.

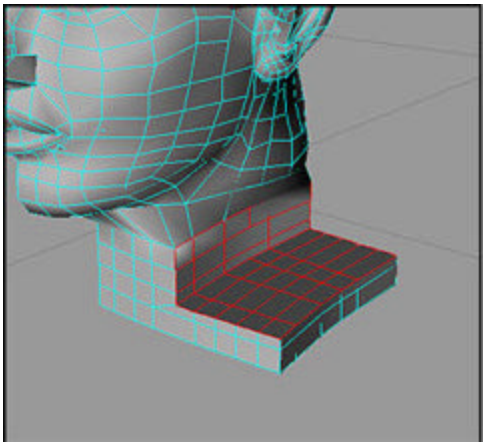
Step 16: Extrude the selected polygons one time so that it matches the image shown.





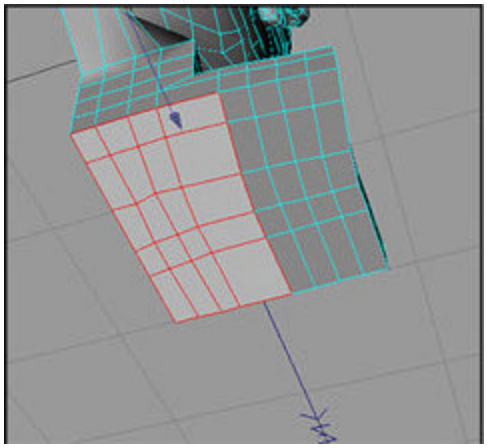
Step 17: Switch to the Points Tool (Tools=>Points) and select the upper row of points. Line them up with the rest of the neck. Next select the pairs of points one by one and Weld them (Structure=>Edit Surface=>Weld).



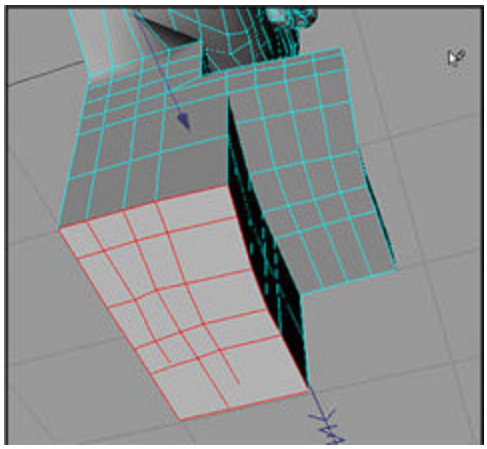


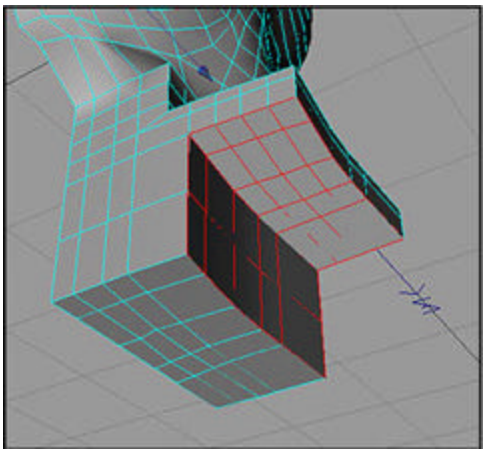
Step 18: Still in Points mode select the points beneath and to the right of the recently welded points and line them up as well. Your neck/shoulder should now look something like the picture shown.

Step 19: Next you are going for the arm pit. Select the polygons as shown.



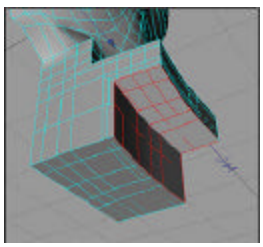
Step 20: Extrude (Structure=>Extrude) the polygons two times with an Offset of 25m.

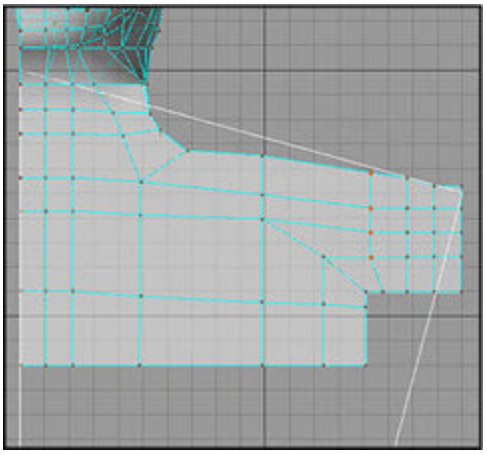




Step 21: Select the polygons as shown.

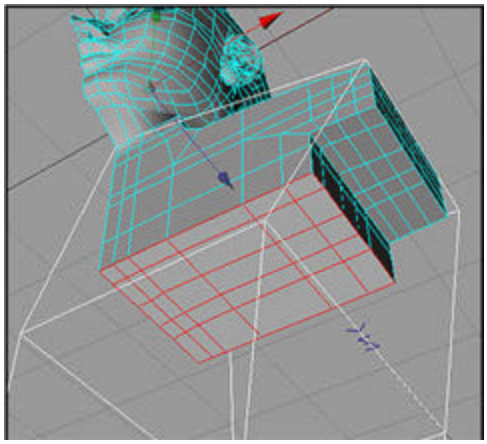
Step 22: Activate the Extrude Tool (Structure=>Extrude). Make sure the Maximum Angle is set to 180 degrees. Extrude the selected polygons twice. In the Object Manager make your 'bodyguide' visible again and switch to the Points Tool (Tool=>Points).

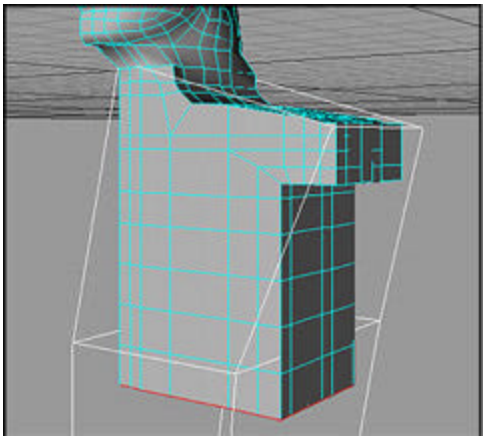




Step 23: With the Rectangle Selection Tool active (Selection=>Rectangle Selection), distribute the points in the Front View (F4) until you get something similar to the picture shown.

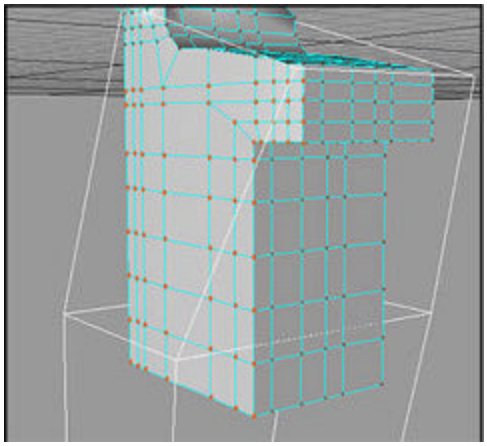
Step 24: Return to the Polygons Tool (Tools=>Polygons) and with the Live Selection Tool (Selection=>Live Selection), select the polygons as shown.

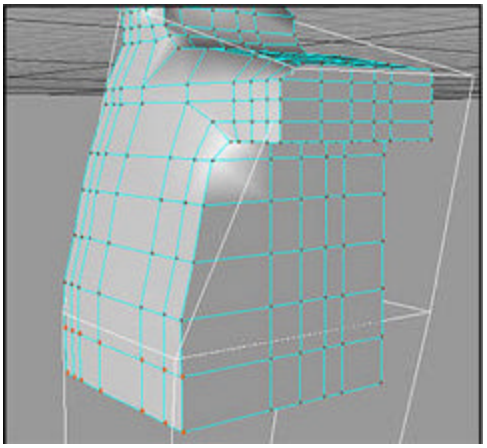




Step 25: Activate the Extrude Tool(Structure=>Extrude) and extrude the still selected polygons four times with an Offset of 30m in the Active Tool Manager.

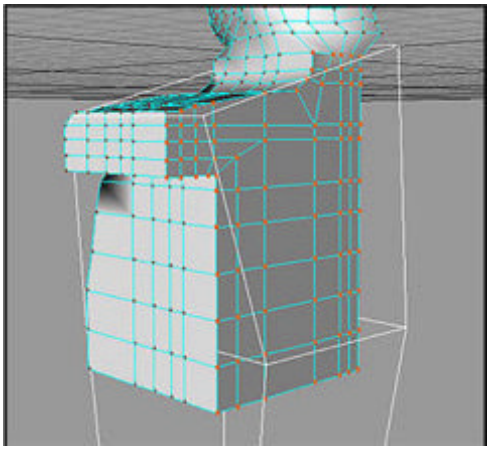
Step 26: Switch back to the Points Tool (Tools=>Points). Disable the Y axis and the X axis and select the points as shown.

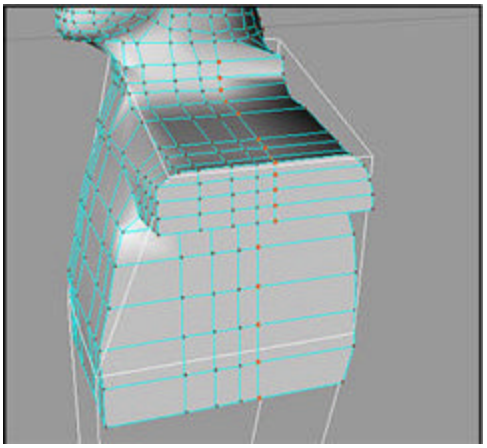




Step 27: Drag the points in the -Z direction until you get something similar to the picture shown.

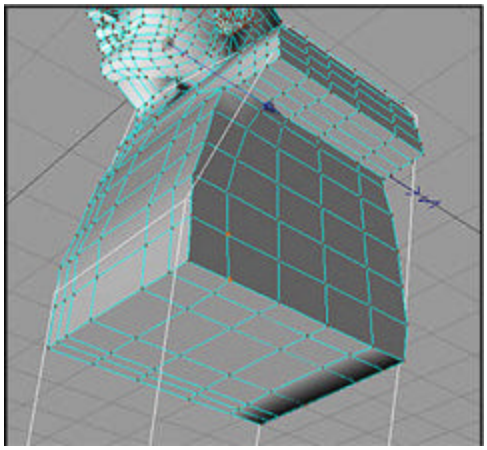
Step 28: Do the same with the selected points on the back until they match the shape of your 'bodyguide' as well.

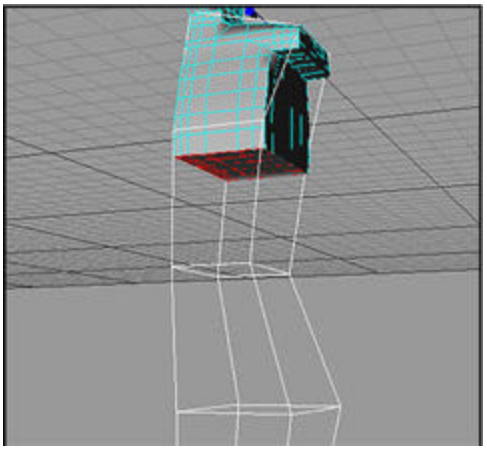




Step 29: Next select the row of points on the side of the body one by one using the Rectangle Selection Tool ('Only Select Visible Elements' unchecked) and your side views.

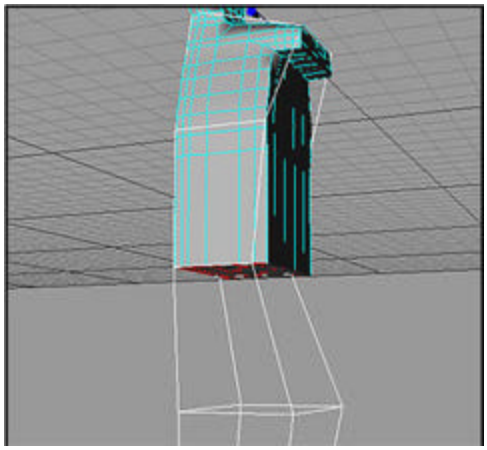
Step 30: Distribute them more evenly.

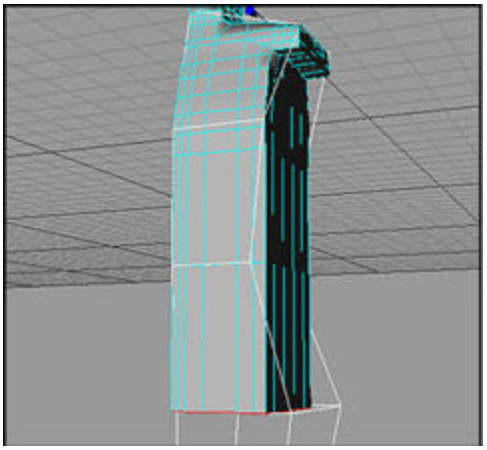




Step 31: Switch back to the Polygons Tool (Tools=>Polygons) and select the polygons as shown.

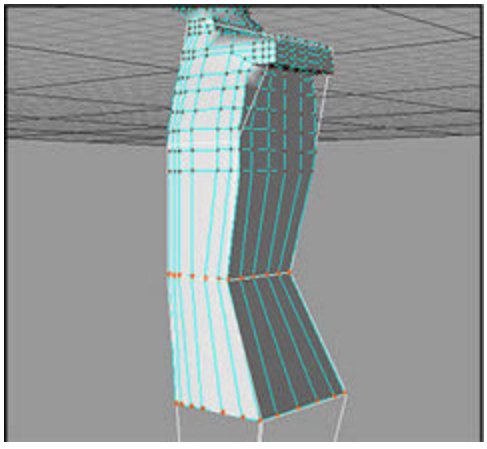
Step 32: Activate the Extrude Tool (Structure=>Extrude) and extrude the polygons until you reach the waist.

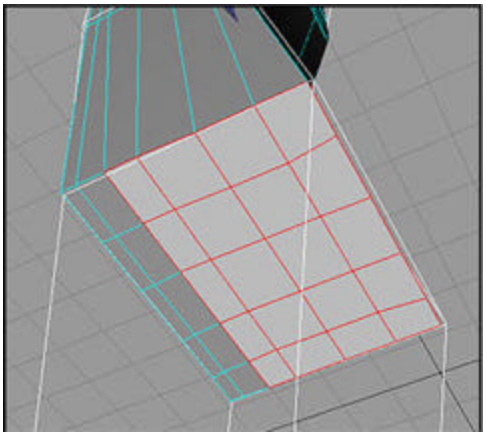




Step 33: Extrude the selected polygons one more time until you reach the hip bone section of your 'bodyguide', or enter 200m for the Offset in the Active Tool Manager and click Apply.

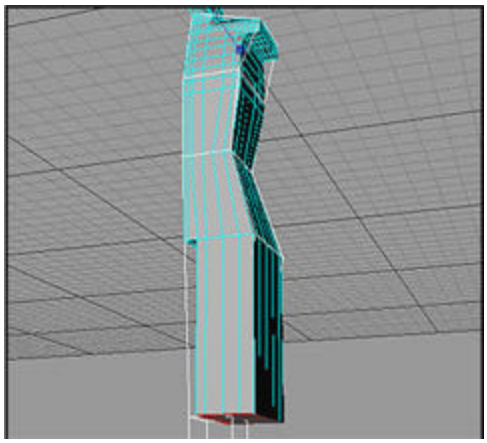
Step 34: Switch to the Points Tool (Tools=>Points) and make the selected points match the 'bodyguide' as shown.

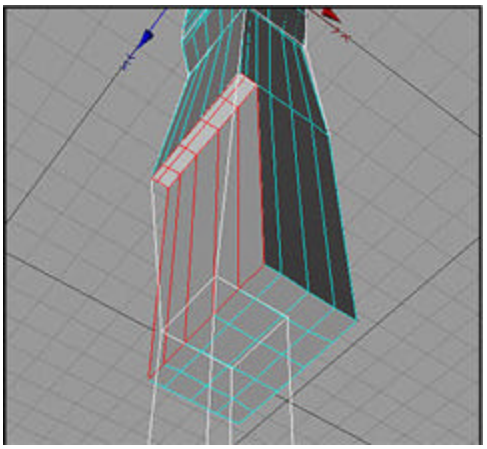




Step 35: Back in Polygons mode select the polygons as shown, make sure the two inner rows of polygons are not selected.

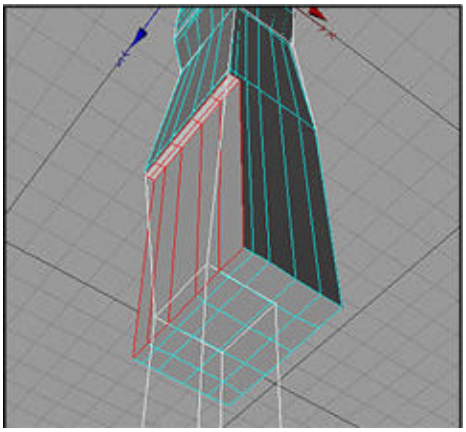
Step 36: Extrude the polygons 400m or until you reach the knee section.

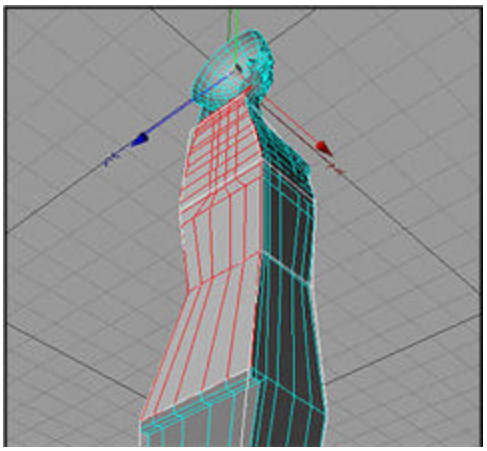




Step 37: Select the two rows of polygons you just left behind plus the inside polygons of the upper leg.

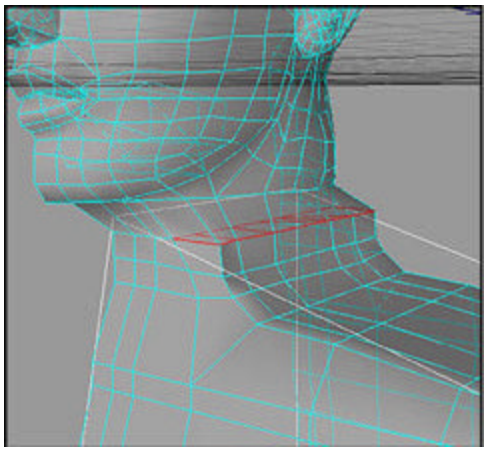
Step 38: Perform an Extrude (Structure=>Extrude) so you get something similar to the picture shown. Next select the bottom polygons of the upper leg and scale them until they fit the 'bodyguide' as well.

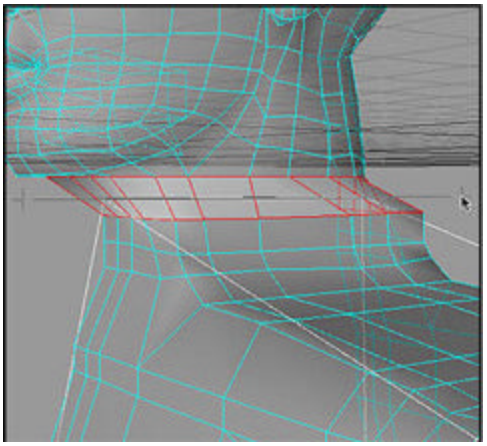




Step 39: All the extrusions left you with a lot of polygons on the inside of the body that you can't use. Select all of them except for the lowest row and delete them.

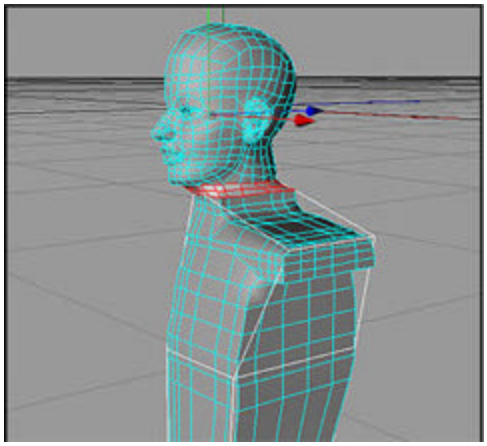
Step 40: You'll now return to working on the neck. Before you welded the extruded row of polygons to the neck, you had deleted one row of polygons but not the polygons forming the top of the extruded row. If you have not already, select and delete them.

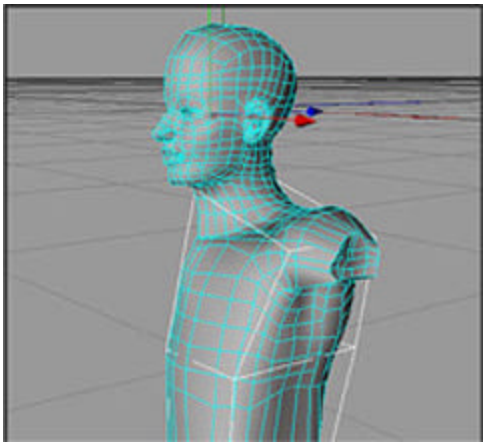


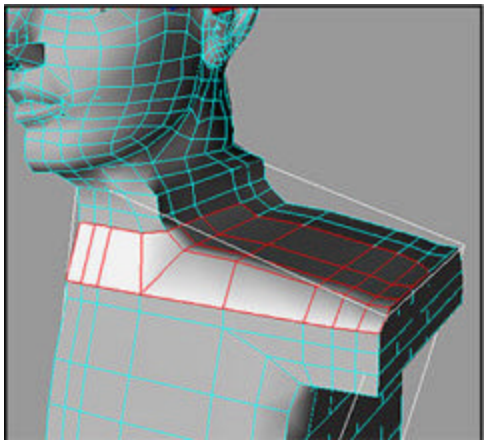


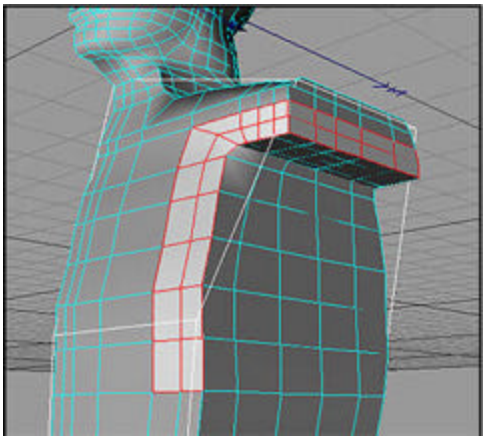
Step 41: Furthermore, for a smoother transition between the neck and shoulder you need one more row of polygons. Select a row of polygons and with the Knife Tool (Structure=>Knife) cut it in two.

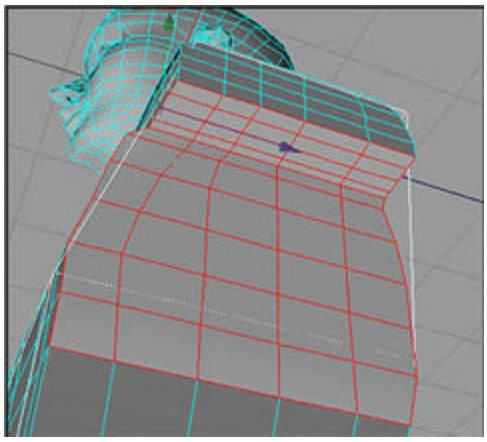
Step 42: Time to give your body a little more shape. The pictures will give more detail on how the polygons should end up. But before you start doing that, it would be a good idea to drag a duplicate of your body in 'bodybackup' (create the new object group if not yet created) and save your work.

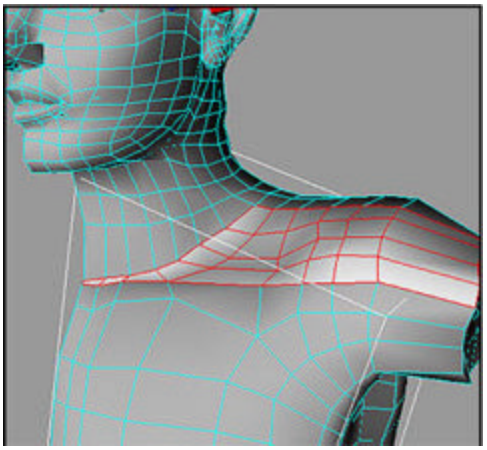


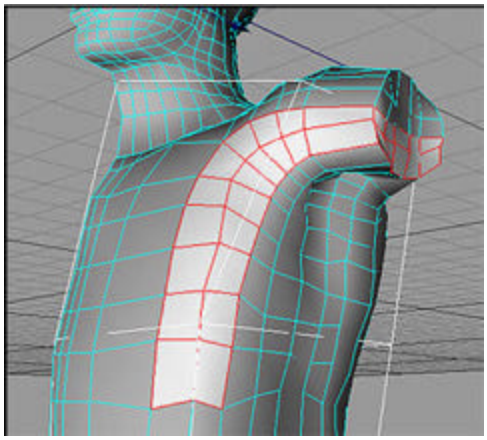


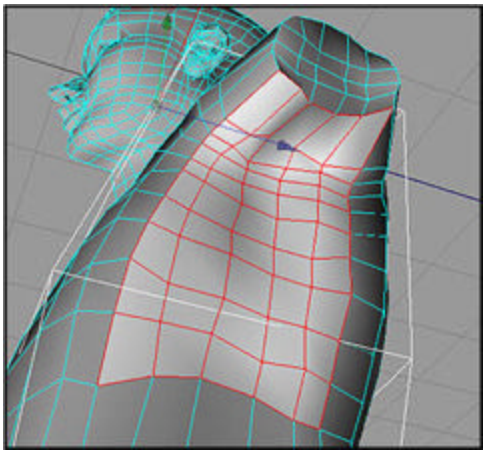




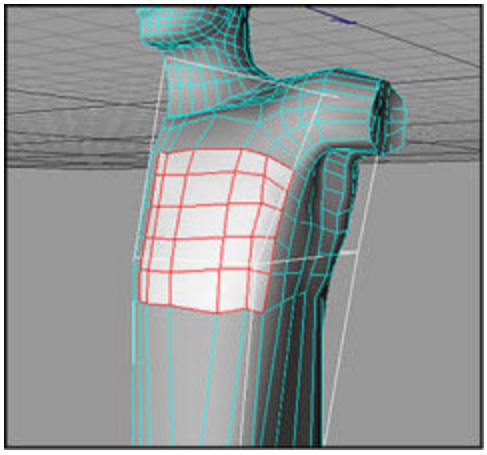


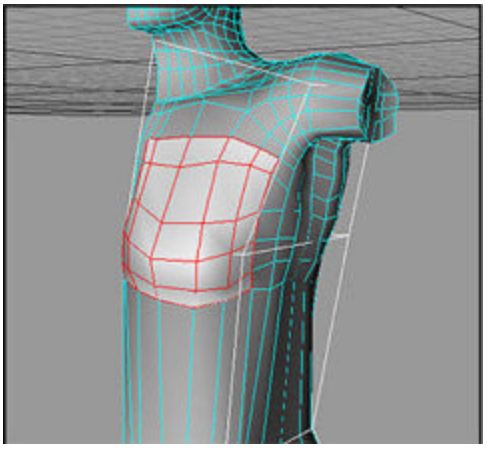




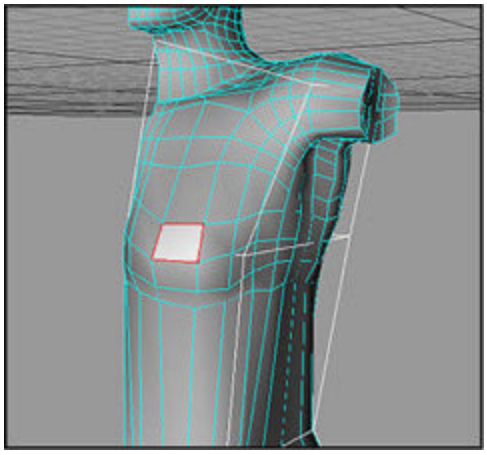


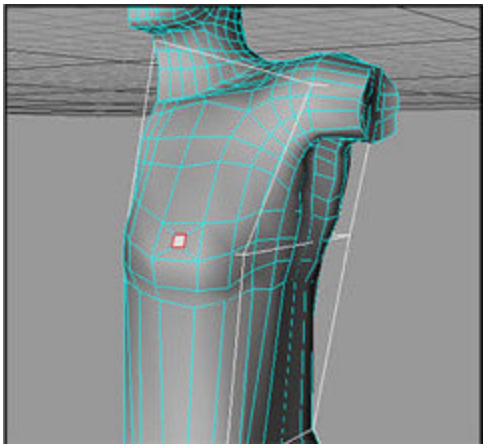
Step 43: The next two pictures show you which polygons are involved in building the breast.





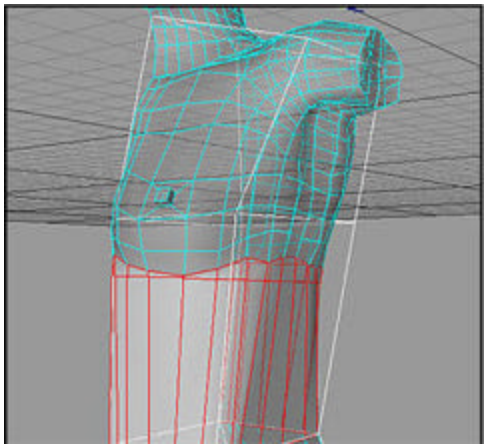
Step 44: The picture shown is the middle polygon of the five by five polygon field that makes up the breast.

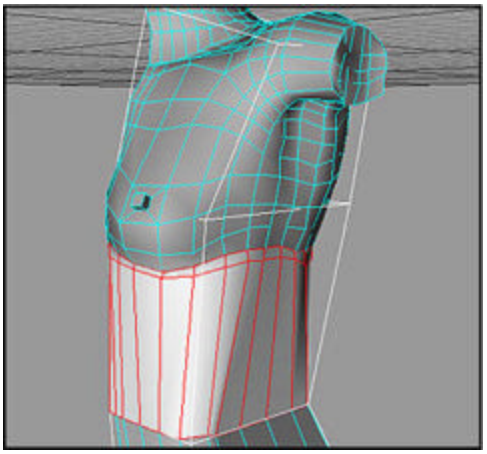




Step 45: This polygon is the base of the nipple. To create it perform an Extrude Inner followed by an Extrude.

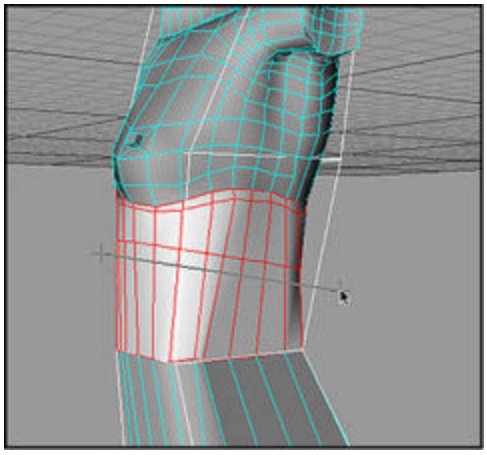
Step 46: Select the polygons as shown, and Knife them one time just under the breast.

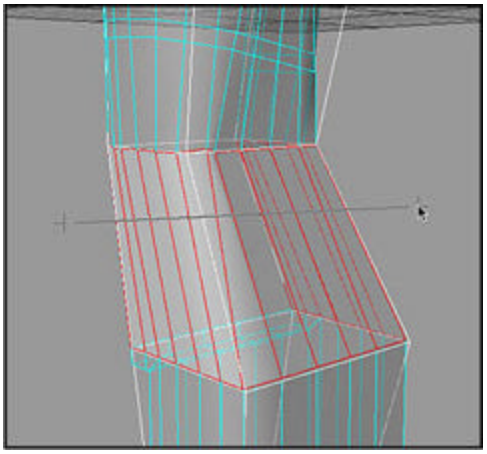




Step 47: You need to adjust these polygons so that they form a smoother transition between the breast and the abdomen.

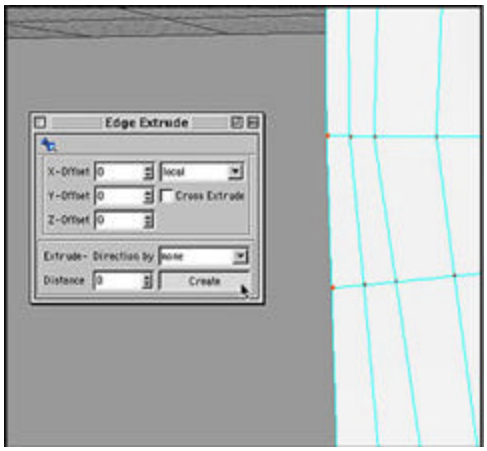
Step 48: Keep the Knife Tool active and with the polygons still selected, perform two slanting cuts, from the front to the back. These should help you to mark the transition between the ribs and the softer parts of the belly/waist.

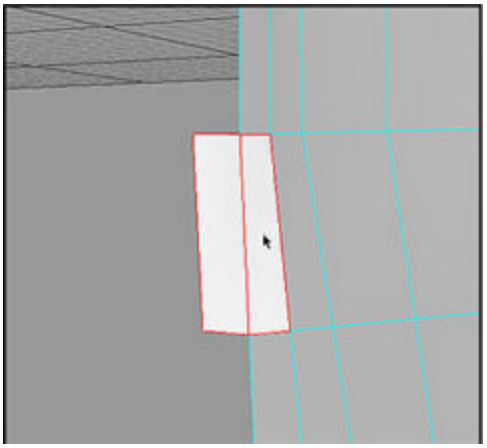




Step 49: Select the polygons of the next section and with the Knife Tool perform a cut about a third of the way from the top of that section. You'll use the new row of polygons to build the navel.

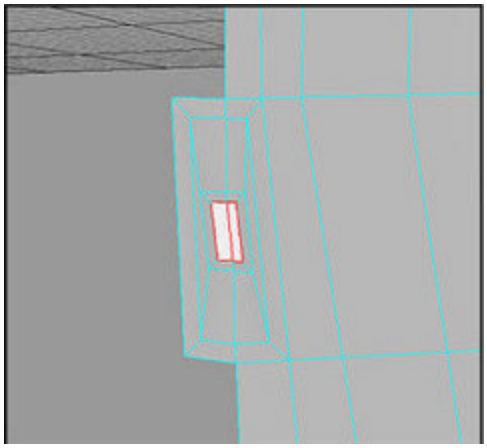
Step 50: Switch to the Points Tool (Tools=>Points) and select the two points as shown. You can now do one of two things. You can duplicate the points in the Structure Manager, drag the duplicated points a bit to the left and create a new polygon with the help of the Bridge Tool (Structure=>Bridge). Or, you can call for the Edge Extrude plugin by Arndt von Koenigsmarck (http://www.vonkoenigsmarck.de). In this tutorial the latter option is chosen. Leave the settings as default and click Apply. Drag the newly created points a bit to the left.

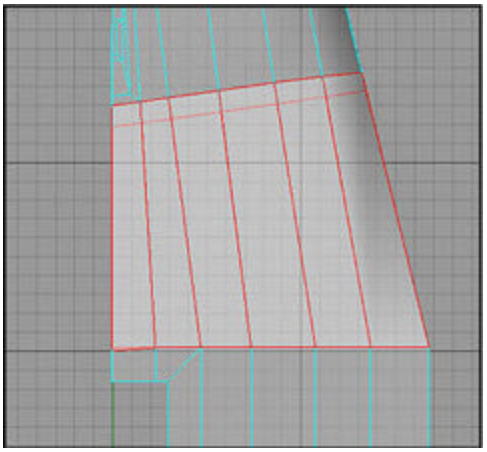




Step 51: In Polygons mode select the newly created polygon and it's neighbor.

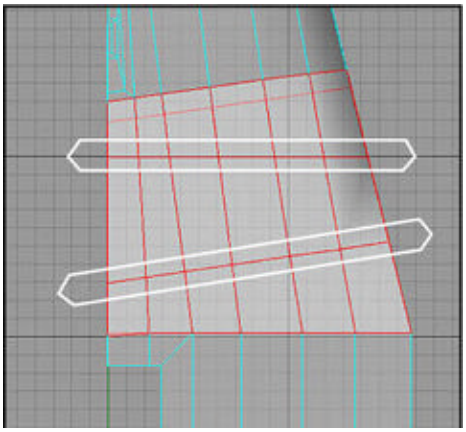
Step 52: Perform three Extrude Inners (Structure=>Extrude Inner). Select the left side of your navel and delete it.

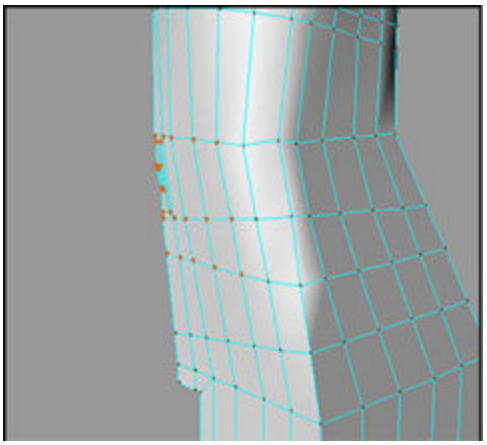




Step 53: Back in Polygons mode select the polygons under the navel.

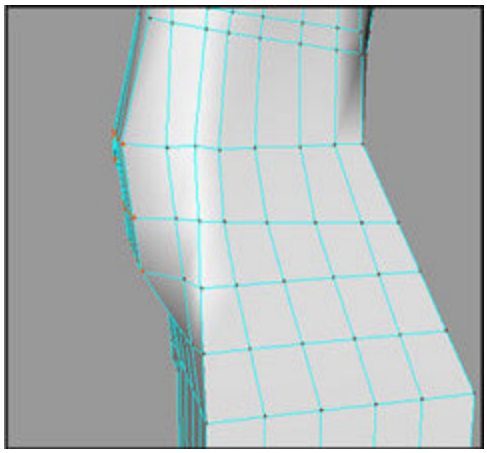
Step 54: With the Knife Tool (Structure=>Knife) perform two cuts. The upper one is to define the hip bone later on. The lower cut is to define the border between her belly and pubis.

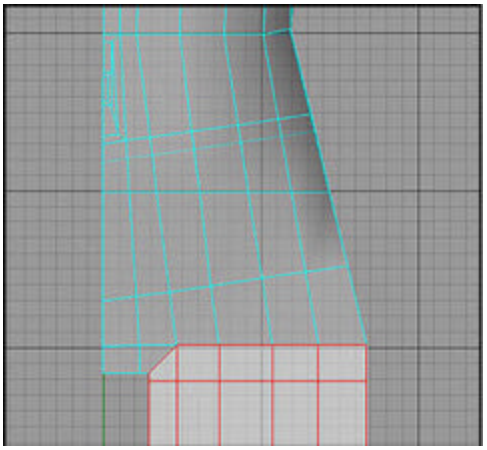




Step 55: Switch to the Points Tool (Tools=>Points) and select the points as shown.

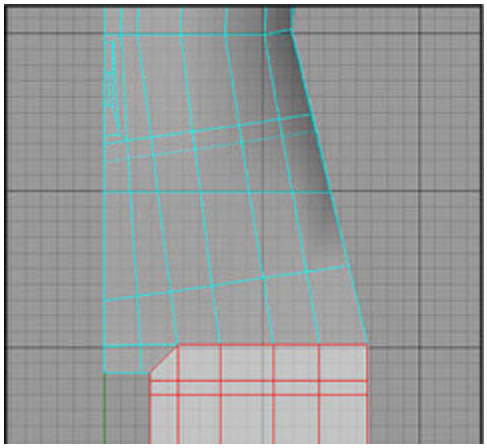
Step 56: Drag the points in the -Z direction until you get something similar to the picture shown.

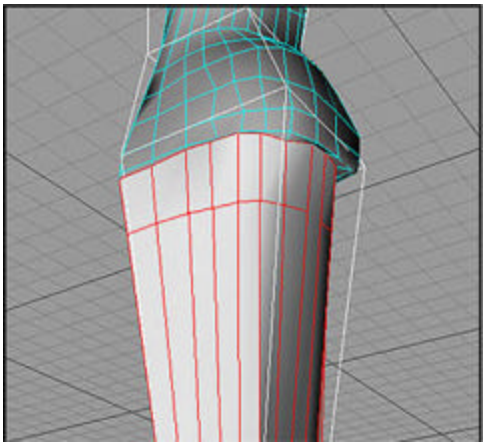




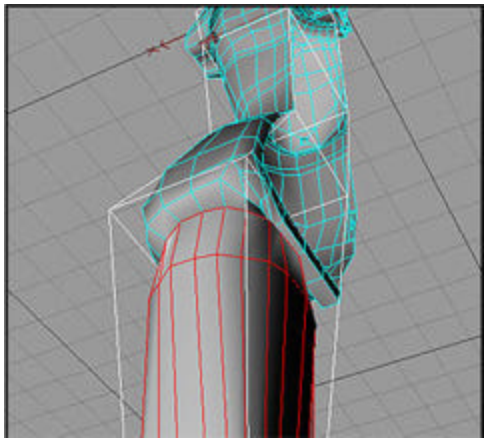
Step 57: Switch to the Polygons Tool (Tools=>Polygons). The region between the trunk and the upper leg is not yet defined.

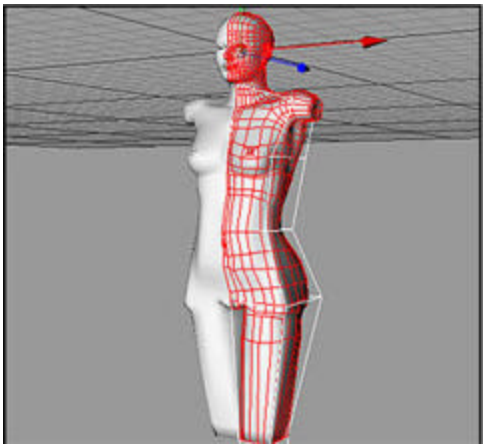
Step 58: You will need two extra rows of polygons. The first will mark where her leg starts, particularly in the butt zone.





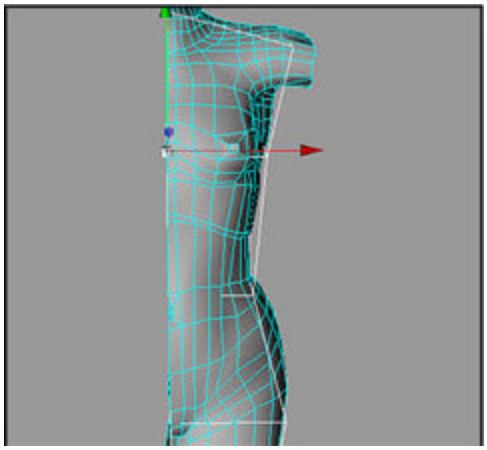
Step 59: The second row formed from the cut is to prevent the leg from losing volume when you tighten the first cut. Use the Knife Tool to make the cuts.

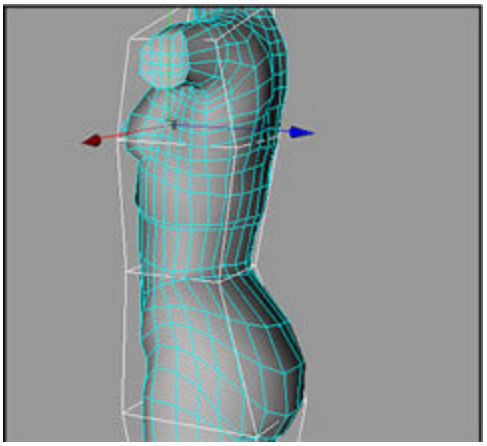


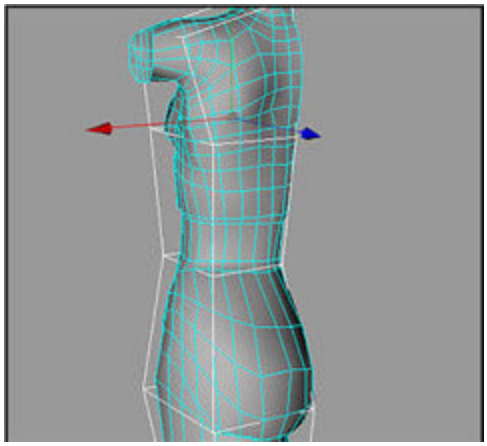


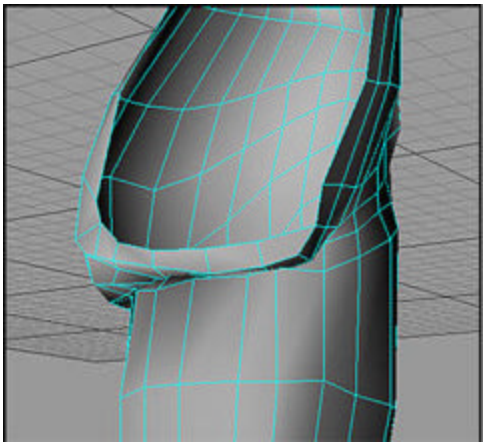
Step 60: Time to drag a duplicate of your body in 'bodybackup' and save your work. You just finished building the basic body with the minimal amount of polygons needed. Model her further into shape using just these polygons.

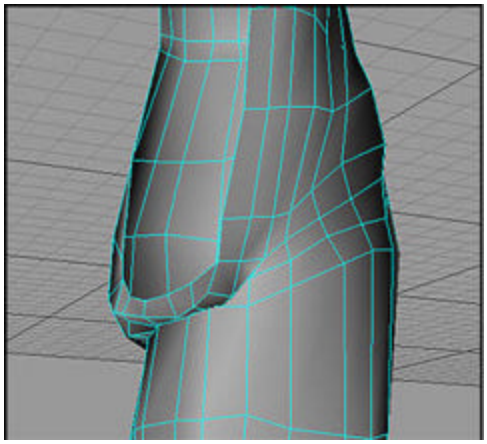
Step 61: If you get the feeling you are lacking detail in the regions of the hip, belly or butt you can always add polygons using the Knife Tool or the Extrude trick (explained in the head section of this tutorial). The next few pictures show where all the polygons for this model ended up.

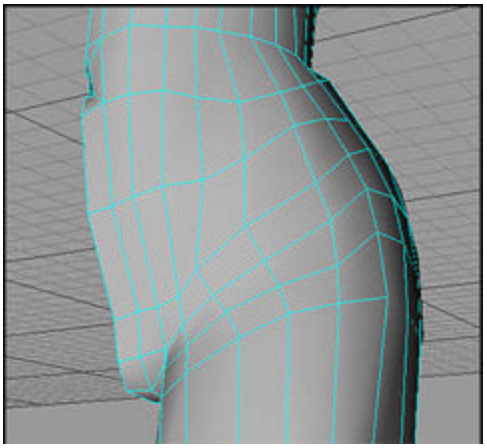


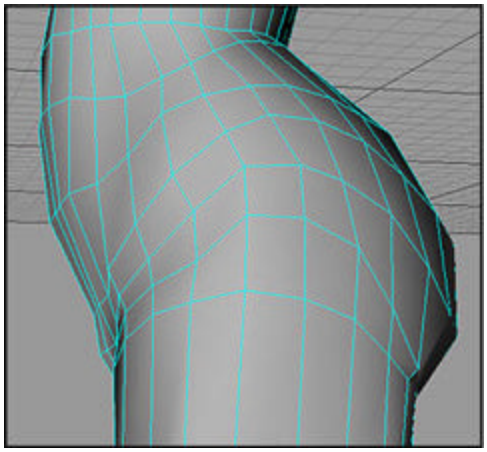


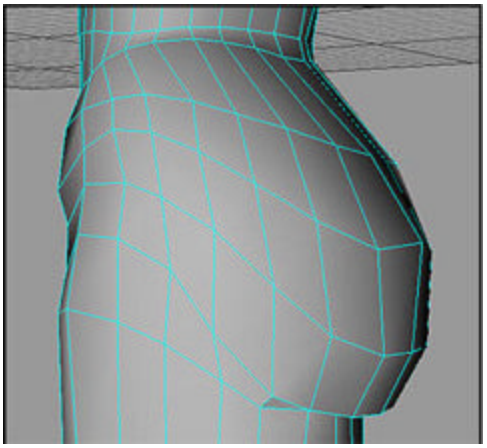


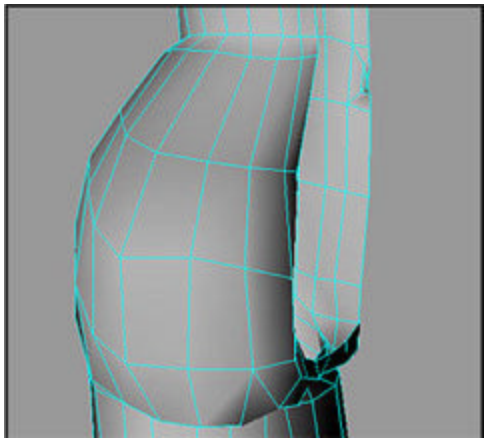


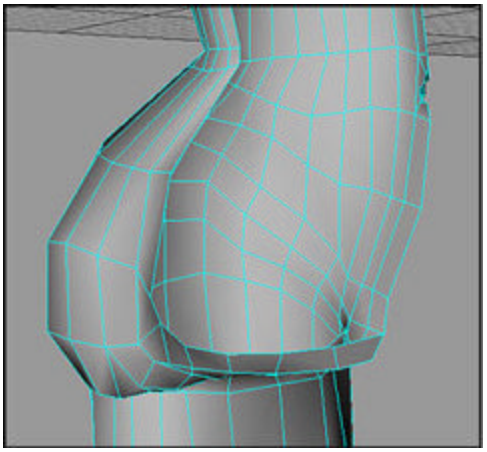


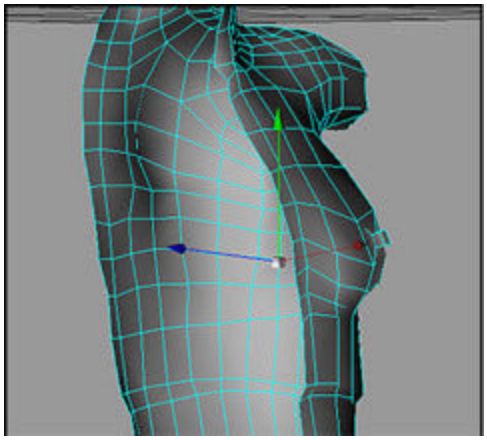


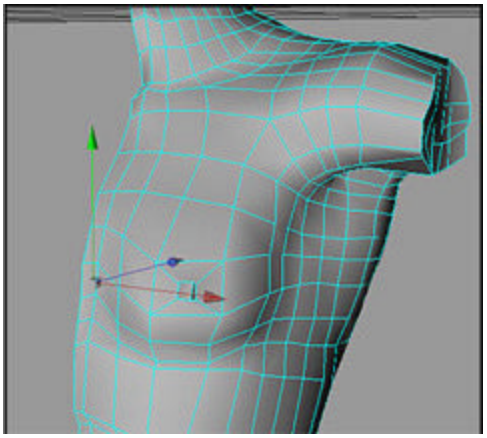


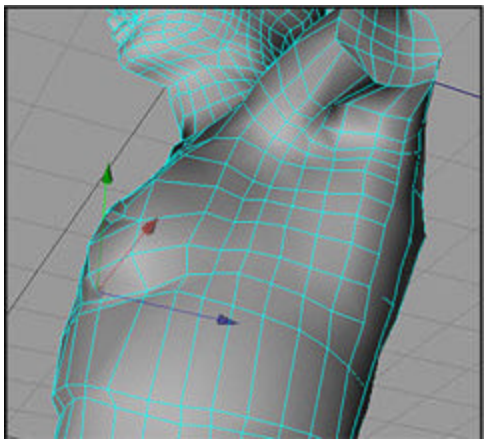


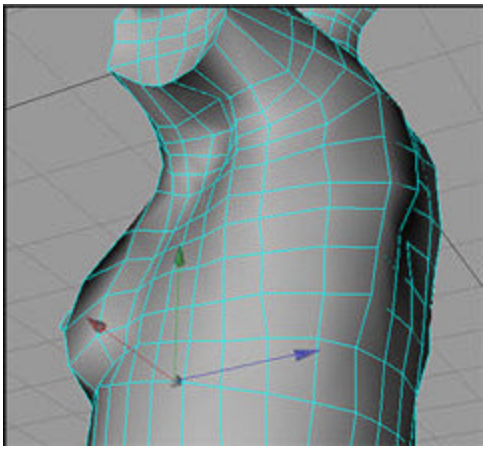


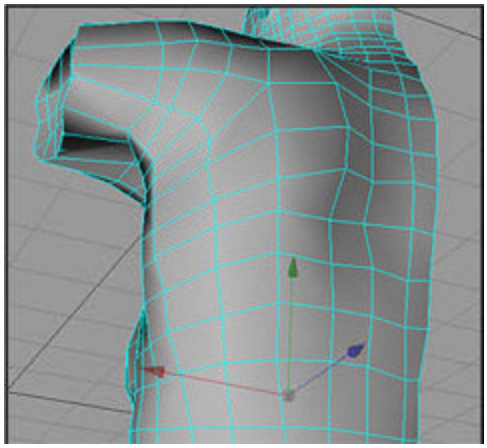












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