| Obs | ID | Sex | Group | Days | Fatmass | FFM | MuscleGlycogen | COXIV | GIRperkgFFMperinsulin |
|-----|----|-----|-------|------|---------|---------|----------------|-------|-----------------------|
| 1 | 1 | 1 | 1 | 0 | 43.1473 | 73.1527 | 517.538 | 1.37 | 2.6919 |
| 2 | 1 | 1 | 1 | 93 | 44.4567 | 72.8433 | 623.147 | 1.49 | 6.7656 |
| 3 | 1 | 1 | 1 | 96 | 44.4567 | 72.8433 | 726.587 | 1.88 | 6.1666 |
| 4 | 4 | 0 | 0 | 0 | 39.6760 | 51.3240 | 506.638 | 0.86 | 5.1617 |
| 5 | 4 | 0 | 0 | 93 | 38.2872 | 52.0128 | 766.439 | 1.12 | 6.2406 |
| 6 | 4 | 0 | 0 | 96 | 38.2448 | 51.9552 | 628.304 | 1.00 | 4.8547 |
| 7 | 6 | 1 | 0 | 0 | 49.7871 | 67.9129 | 519.121 | 1.05 | 4.6351 |
| 8 | 6 | 1 | 0 | 93 | 48.5135 | 68.3865 | 553.229 | 1.47 | 4.6936 |
| 9 | 6 | 1 | 0 | 96 | 49.7170 | 70.0830 | 832.371 | 1.58 | 4.4599 |
| 10 | 7 | 0 | 0 | 0 | 44.8836 | 54.4164 | 585.228 | 1.22 | 13.7358 |

| Obs | TotalAdiponectin | LogTotalAdiponectin |
|-----|------------------|---------------------|
| 1 | 2472.66 | 3.39316 |
| 2 | 1157.65 | 3.06358 |
| 3 | 1173.18 | 3.06936 |
| 4 | 1369.91 | 3.13669 |
| 5 | 1017.86 | 3.00769 |
| 6 | 1105.87 | 3.04371 |
| 7 | 1354.38 | 3.13174 |
| 8 | 795.24 | 2.90050 |
| 9 | 909.14 | 2.95863 |
| 10 | 11574.23 | 4.06349 |

| Obs | ID | Sex | Group | Days | Fatmass | FFM | MuscleGlycogen | COXIV | GIRperkgFFMperinsulin | TotalAdiponectin |
|-----|----|-----|-------|------|---------|---------|----------------|-------|-----------------------|------------------|
| 1 | 1 | 1 | 1 | 0 | 43.1473 | 73.1527 | 517.538 | 1.37 | 2.6919 | 2472.66 |
| 2 | 1 | 1 | 1 | 93 | 44.4567 | 72.8433 | 623.147 | 1.49 | 6.7656 | 1157.65 |
| 3 | 1 | 1 | 1 | 96 | 44.4567 | 72.8433 | 726.587 | 1.88 | 6.1666 | 1173.18 |
| 4 | 4 | 0 | 0 | 0 | 39.6760 | 51.3240 | 506.638 | 0.86 | 5.1617 | 1369.91 |
| 5 | 4 | 0 | 0 | 93 | 38.2872 | 52.0128 | 766.439 | 1.12 | 6.2406 | 1017.86 |
| 6 | 4 | 0 | 0 | 96 | 38.2448 | 51.9552 | 628.304 | 1.00 | 4.8547 | 1105.87 |
| 7 | 6 | 1 | 0 | 0 | 49.7871 | 67.9129 | 519.121 | 1.05 | 4.6351 | 1354.38 |
| 8 | 6 | 1 | 0 | 93 | 48.5135 | 68.3865 | 553.229 | 1.47 | 4.6936 | 795.24 |
| 9 | 6 | 1 | 0 | 96 | 49.7170 | 70.0830 | 832.371 | 1.58 | 4.4599 | 909.14 |
| 10 | 7 | 0 | 0 | 0 | 44.8836 | 54.4164 | 585.228 | 1.22 | 13.7358 | 11574.23 |

| Obs | LogTotalAdiponectin | Fatmass_cent | Adiponectin_cent | MuscleGlycogen_cent |
|-----|---------------------|--------------|------------------|---------------------|
| 1 | 3.39316 | 2.4673 | -1537.73 | -77.868 |
| 2 | 3.06358 | 3.7767 | -2852.75 | 27.741 |
| 3 | 3.06936 | 3.7767 | -2837.22 | 131.181 |
| 4 | 3.13669 | -1.0040 | -2640.48 | -88.768 |
| 5 | 3.00769 | -2.3928 | -2992.53 | 171.033 |
| 6 | 3.04371 | -2.4352 | -2904.52 | 32.898 |
| 7 | 3.13174 | 9.1071 | -2656.01 | -76.285 |
| 8 | 2.90050 | 7.8335 | -3215.16 | -42.176 |
| 9 | 2.95863 | 9.0370 | -3101.26 | 236.965 |
| 10 | 4.06349 | 4.2036 | 7563.84 | -10.177 |

| Model Information | | | | | | |
|---------------------------|-----------------------|--|--|--|--|--|
| Data Set | WORK.EXERCISE_D | | | | | |
| Dependent Variable | GIRperkgFFMperinsulin | | | | | |
| Covariance Structure | Unstructured | | | | | |
| Subject Effects | ID, ID | | | | | |
| Estimation Method | REML | | | | | |
| Residual Variance Method | None | | | | | |
| Fixed Effects SE Method | Model-Based | | | | | |
| Degrees of Freedom Method | Containment | | | | | |

| Class Level Information | | | | | | | |
|-------------------------|--------|--|--|--|--|--|--|
| Class | Levels | Values | | | | | |
| ID | 31 | 1 10 11 19 21 22 23 24 25 27 29 31 4 40 41 42 43 47 49 53 55 56 6 62 63 64 65 66 7 8 9 | | | | | |
| Group | 2 | 0 1 | | | | | |
| Sex | 2 | 0 1 | | | | | |

| Dimensions | | | | |
|--------------------------|----|--|--|--|
| Covariance Parameters | 9 | | | |
| Columns in X | 6 | | | |
| Columns in Z per Subject | 2 | | | |
| Subjects | 31 | | | |
| Max Obs per Subject | 3 | | | |

| Number of Observations | | | | |
|---------------------------------|----|--|--|--|
| Number of Observations Read | 93 | | | |
| Number of Observations Used | 92 | | | |
| Number of Observations Not Used | 1 | | | |

| Iteration History | | | | | | | |
|-------------------|-------------|-----------------|-------------|--|--|--|--|
| Iteration | Evaluations | -2 Res Log Like | Criterion | | | | |
| 0 | 1 | 516.10980013 | | | | | |
| 1 | 2 | 471.64057359 | 17.41724844 | | | | |
| 2 | 3 | 471.57048202 | | | | | |
| 3 | 1 | 471.23839134 | 0.06134771 | | | | |
| 4 | 1 | 470.95165599 | 0.01823840 | | | | |
| 5 | 1 | 470.88482812 | | | | | |
| 6 | 1 | 470.87491530 | | | | | |

| Iteration History | | | | | | | |
|-------------------|-------------|-----------------|------------|--|--|--|--|
| Iteration | Evaluations | -2 Res Log Like | Criterion | | | | |
| 7 | 1 | 470.87482281 | | | | | |
| 8 | 1 | 470.87482280 | 0.00000000 | | | | |

Convergence criteria met but final Hessian is not positive definite.

| Estimated R Matrix for ID 1 | | | | | | | |
|-----------------------------|---------|--------|---------|--|--|--|--|
| Row | Col1 | Col2 | Col3 | | | | |
| 1 | 4.0178 | 3.6771 | -0.2560 | | | | |
| 2 | 3.6771 | 9.1962 | 2.0209 | | | | |
| 3 | -0.2560 | 2.0209 | 3.9998 | | | | |

| Estimated R Correlation Matrix for ID 1 | | | | | | | |
|---|----------|--------|----------|--|--|--|--|
| Row | Col1 | Col2 | Col3 | | | | |
| 1 | 1.0000 | 0.6049 | -0.06386 | | | | |
| 2 | 0.6049 | 1.0000 | 0.3332 | | | | |
| 3 | -0.06386 | 0.3332 | 1.0000 | | | | |

| Estimated G Matrix | | | | | |
|--------------------|-----------|----|----------|----------|--|
| Row | Effect | ID | Col1 | Col2 | |
| 1 | Intercept | 1 | 6.9104 | 0.005971 | |
| 2 | Days | 1 | 0.005971 | | |

| | Estimated G Correlation Matrix | | | | | |
|----|--------------------------------|-----------|----|--------|--------|--|
| Ro | Row Effect | | ID | Col1 | Col2 | |
| | 1 | Intercept | 1 | 1.0000 | | |
| | 2 | Days | 1 | | 1.0000 | |

| Estimated V Matrix for ID 1 | | | | | | |
|-----------------------------|--------------|---------|---------|--|--|--|
| Row | Col1 Col2 Co | | | | | |
| 1 | 10.9282 | 11.1428 | 7.2276 | | | |
| 2 | 11.1428 | 17.2172 | 10.0598 | | | |
| 3 | 7.2276 | 10.0598 | 12.0566 | | | |

| Estimated V Correlation Matrix for ID 1 | | | | | |
|---|--------|--------|--------|--|--|
| Row | Col1 | Col2 | Col3 | | |
| 1 | 1.0000 | 0.8123 | 0.6297 | | |
| 2 | 0.8123 | 1.0000 | 0.6982 | | |
| 3 | 0.6297 | 0.6982 | 1.0000 | | |

Estimated G matrix is not positive definite.

| Covariance Parameter Estimates | | | | | |
|-----------------------------------|---------|----------|--|--|--|
| Cov Parm | Subject | Estimate | | | |
| UN(1,1) | ID | 6.9104 | | | |
| UN(2,1) | ID | 0.005971 | | | |
| UN(2,2) | ID | 0 | | | |
| UN(1,1) | ID | 4.0178 | | | |
| UN(2,1) | ID | 3.6771 | | | |
| UN(2,2) | ID | 9.1962 | | | |
| UN(3,1) | ID | -0.2560 | | | |
| UN(3,2) | ID | 2.0209 | | | |
| UN(3,3) | ID | 3.9998 | | | |

| Fit Statistics | | | |
|--------------------------|-------|--|--|
| -2 Res Log Likelihood | 470.9 | | |
| AIC (Smaller is Better) | 486.9 | | |
| AICC (Smaller is Better) | 488.7 | | |
| BIC (Smaller is Better) | 498.3 | | |

| Null Model Likelihood Ratio Test | | | | |
|-------------------------------------|------------|------------|--|--|
| DF | Chi-Square | Pr > ChiSq | | |
| 7 | 45.23 | <.0001 | | |

| Solution for Fixed Effects | | | | | | | |
|----------------------------|-------|-----|----------|-------------------|----|---------|---------|
| Effect | Group | Sex | Estimate | Standard Error | DF | t Value | Pr > t |
| Sex | | 0 | 8.0375 | 0.7542 | 28 | 10.66 | <.0001 |
| Sex | | 1 | 5.6404 | 0.9070 | 28 | 6.22 | <.0001 |
| Days*Group | 0 | | 0.01312 | 0.005984 | 28 | 2.19 | 0.0368 |
| Days*Group | 1 | | 0.01692 | 0.006163 | 28 | 2.75 | 0.0104 |

| Solution for Fixed Effects | | | | | | | |
|---|--|--|----------|----------|----|-------|--------|
| Effect Group Sex Estimate Standard Error DF t Value Pr > t | | | | | | | |
| Fatmass_cent | | | -0.09971 | 0.07719 | 28 | -1.29 | 0.2070 |
| Adiponectin_cent | | | 0.000318 | 0.000211 | 28 | 1.50 | 0.1436 |

| Type 3 Tests of Fixed Effects | | | | | | |
|----------------------------------|---|----|-------|--------|--|--|
| Effect Num Den DF F Value Pr > F | | | | | | |
| Sex | 2 | 28 | 82.78 | <.0001 | | |
| Days*Group | 2 | 28 | 5.76 | 0.0080 | | |
| Fatmass_cent | 1 | 28 | 1.67 | 0.2070 | | |
| Adiponectin_cent | 1 | 28 | 2.26 | 0.1436 | | |

| Model Information | | |
|---------------------------------------|--|--|
| Data Set | WORK.EXERCISE_D | |
| Dependent Variable | GIRperkgFFMperinsulin | |
| Covariance Structures | Unstructured, Heterogeneous Autoregressive | |
| Subject Effects | ID, ID | |
| Estimation Method | REML | |
| Residual Variance Method | None | |
| Fixed Effects SE Method | Model-Based | |
| Degrees of Freedom Method Containment | | |

| | Class Level Information | | | | | |
|-------|-------------------------|--|--|--|--|--|
| Class | Levels | Values | | | | |
| ID | 31 | 1 10 11 19 21 22 23 24 25 27 29 31 4 40 41 42 43 47 49 53 55 56 6 62 63 64 65 66 7 8 9 | | | | |
| Group | 2 | 0 1 | | | | |
| Sex | 2 | 0 1 | | | | |

| Dimensions | | |
|--------------------------|----|--|
| Covariance Parameters | 7 | |
| Columns in X | 6 | |
| Columns in Z per Subject | 2 | |
| Subjects | 31 | |
| Max Obs per Subject | 3 | |

| Number of Observations | | |
|---------------------------------|----|--|
| Number of Observations Read | 93 | |
| Number of Observations Used | 92 | |
| Number of Observations Not Used | 1 | |

| Iteration History | | | | |
|-------------------|------------------------------------|--------------|------------|--|
| Iteration | ration Evaluations -2 Res Log Like | | | |
| 0 | 1 | 516.10980013 | | |
| 1 | 4 | 472.89339573 | 0.26875569 | |
| 2 | 1 | 472.77597653 | 0.00244084 | |
| 3 | 4 | 472.52027379 | 0.00075704 | |
| 4 | 1 | 472.38733397 | 0.00011214 | |
| 5 | 2 | 472.36845942 | 0.00000895 | |

| Iteration History | | | | |
|-------------------|-------------|-----------------|------------|--|
| Iteration | Evaluations | -2 Res Log Like | Criterion | |
| 6 | 1 | 472.36700558 | 0.00000005 | |
| 7 | 1 | 472.36699776 | 0.00000000 | |

Convergence criteria met.

| Estimated R Matrix for ID 1 | | | | | |
|-----------------------------|--------|---------|--------|--|--|
| Row Col1 Col2 Col | | | | | |
| 1 | 5.9181 | 5.7183 | 3.1198 | | |
| 2 | 5.7183 | 12.8571 | 7.0146 | | |
| 3 | 3.1198 | 7.0146 | 8.9052 | | |

| Estimated R Correlation Matrix for ID 1 | | | | |
|---|--------|--------|--------|--|
| Row | Col1 | Col2 | Col3 | |
| 1 | 1.0000 | 0.6556 | 0.4297 | |
| 2 | 0.6556 | 1.0000 | 0.6556 | |
| 3 | 0.4297 | 0.6556 | 1.0000 | |

| Estimated G Matrix | | | | | |
|--------------------|-----------|---|----------|----------|--|
| Row Effect ID Col | | | | Col2 | |
| 1 | Intercept | 1 | 4.3337 | -0.00346 | |
| 2 | Days | 1 | -0.00346 | | |

| Estimated G Correlation Matrix | | | | |
|--------------------------------|-----------|---|--------|--------|
| Row Effect ID Col1 Col2 | | | | |
| 1 | Intercept | 1 | 1.0000 | |
| 2 | Days | 1 | | 1.0000 |

| Estimated V Matrix for ID 1 | | | | |
|-----------------------------|---------|---------|---------|--|
| Row | Col1 | Col2 | Col3 | |
| 1 | 10.2518 | 9.7304 | 7.1215 | |
| 2 | 9.7304 | 16.5476 | 10.6947 | |
| 3 | 7.1215 | 10.6947 | 12.5750 | |

| Estimated V Correlation Matrix for ID 1 | | | | |
|---|--------|--------|--------|--|
| Row | Col1 | Col2 | Col3 | |
| 1 | 1.0000 | 0.7471 | 0.6272 | |
| 2 | 0.7471 | 1.0000 | 0.7414 | |
| 3 | 0.6272 | 0.7414 | 1.0000 | |

Estimated G matrix is not positive definite.

| Covariance Parameter Estimates | | | | |
|-----------------------------------|----|----------|--|--|
| Cov Parm Subject Estimate | | | | |
| UN(1,1) | ID | 4.3337 | | |
| UN(2,1) | ID | -0.00346 | | |
| UN(2,2) | ID | 0 | | |
| Var(1) | ID | 5.9181 | | |
| Var(2) | ID | 12.8571 | | |
| Var(3) | ID | 8.9052 | | |
| ARH(1) | ID | 0.6556 | | |

| Fit Statistics | | |
|--------------------------|-------|--|
| -2 Res Log Likelihood | 472.4 | |
| AIC (Smaller is Better) | 484.4 | |
| AICC (Smaller is Better) | 485.4 | |
| BIC (Smaller is Better) | 493.0 | |

| Null Model Likelihood Ratio Test | | | |
|-------------------------------------|------------|------------|--|
| DF | Chi-Square | Pr > ChiSq | |
| 5 | 43.74 | <.0001 | |

| Solution for Fixed Effects | | | | | | | |
|--|---|---|----------|----------|----|---------|--------|
| Effect Group Sex Estimate Standard Error DF t Value Pr > 1 | | | | | | Pr > t | |
| Sex | | 0 | 8.1150 | 0.7577 | 28 | 10.71 | <.0001 |
| Sex | | 1 | 5.7848 | 0.9082 | 28 | 6.37 | <.0001 |
| Days*Group | 0 | | 0.01254 | 0.006689 | 28 | 1.88 | 0.0712 |
| Days*Group | 1 | | 0.01591 | 0.006802 | 28 | 2.34 | 0.0267 |
| Fatmass_cent | | | -0.1109 | 0.07782 | 28 | -1.43 | 0.1650 |
| Adiponectin_cent | | | 0.000341 | 0.000214 | 28 | 1.59 | 0.1220 |

| Type 3 Tests of Fixed Effects | | | | | | |
|-------------------------------|---------------------------|----|-------|--------|--|--|
| Effect | Num Den DF F Value Pr > F | | | | | |
| Sex | 2 | 28 | 83.95 | <.0001 | | |
| Days*Group | 2 | 28 | 4.19 | 0.0255 | | |
| Fatmass_cent | 1 | 28 | 2.03 | 0.1650 | | |
| Adiponectin_cent | 1 | 28 | 2.54 | 0.1220 | | |

rand unstrucutred, main ARH(1), without random slope

| Model Information | | |
|---------------------------|--|--|
| Data Set | WORK.EXERCISE_D | |
| Dependent Variable | GIRperkgFFMperinsulin | |
| Covariance Structures | Unstructured, Heterogeneous Autoregressive | |
| Subject Effects | ID, ID | |
| Estimation Method | REML | |
| Residual Variance Method | None | |
| Fixed Effects SE Method | Model-Based | |
| Degrees of Freedom Method | Containment | |

| | Class Level Information | | | |
|-------|-------------------------|--|--|--|
| Class | Levels | Values | | |
| ID | 31 | 1 10 11 19 21 22 23 24 25 27 29 31 4 40 41 42 43 47 49 53 55 56 6 62 63 64 65 66 7 8 9 | | |
| Group | 2 | 0 1 | | |
| Sex | 2 | 0 1 | | |

| Dimensions | |
|--------------------------|----|
| Covariance Parameters | 5 |
| Columns in X | 6 |
| Columns in Z per Subject | 1 |
| Subjects | 31 |
| Max Obs per Subject | 3 |

| Number of Observations | | |
|---------------------------------|----|--|
| Number of Observations Read | 93 | |
| Number of Observations Used | 92 | |
| Number of Observations Not Used | 1 | |

| Iteration History | | | | |
|-------------------|-------------|-----------------|------------|--|
| Iteration | Evaluations | -2 Res Log Like | Criterion | |
| 0 | 1 | 516.10980013 | | |
| 1 | 2 | 472.88923942 | 0.00273373 | |
| 2 | 1 | 472.41630842 | 0.00019138 | |
| 3 | 2 | 472.38131396 | 0.00002011 | |
| 4 | 1 | 472.37791996 | 0.00000030 | |
| 5 | 1 | 472.37787258 | 0.00000000 | |

rand unstrucutred, main ARH(1), without random slope

The Mixed Procedure

Convergence criteria met.

| Estimated R Matrix for ID 1 | | | | |
|-----------------------------|--------|---------|--------|--|
| Row | Col1 | Col2 | Col3 | |
| 1 | 6.0863 | 5.6843 | 3.0258 | |
| 2 | 5.6843 | 12.6486 | 6.7329 | |
| 3 | 3.0258 | 6.7329 | 8.5389 | |

| Estimated R Correlation Matrix for ID 1 | | | | |
|---|--------|--------|--------|--|
| Row | Col1 | Col2 | Col3 | |
| 1 | 1.0000 | 0.6479 | 0.4197 | |
| 2 | 0.6479 | 1.0000 | 0.6479 | |
| 3 | 0.4197 | 0.6479 | 1.0000 | |

| Estimated G Matrix | | | | |
|--------------------|-----------|---|--------|--|
| Row Effect ID Col1 | | | Col1 | |
| 1 | Intercept | 1 | 4.1467 | |

| Estimated G Correlation Matrix | | | |
|-----------------------------------|-----------|----|--------|
| Row | Effect | ID | Col1 |
| 1 | Intercept | 1 | 1.0000 |

| Estimated V Matrix for ID 1 | | | | | |
|-----------------------------|--------------------|---------|---------|--|--|
| Row | Row Col1 Col2 Col3 | | | | |
| 1 | 10.2330 | 9.8310 | 7.1725 | | |
| 2 | 9.8310 | 16.7953 | 10.8797 | | |
| 3 | 7.1725 | 10.8797 | 12.6857 | | |

| Estimated V Correlation Matrix for ID 1 | | | | |
|---|--------|--------|--------|--|
| Row | Col3 | | | |
| 1 | 1.0000 | 0.7499 | 0.6295 | |
| 2 | 0.7499 | 1.0000 | 0.7454 | |
| 3 | 0.6295 | 0.7454 | 1.0000 | |

rand unstrucutred, main ARH(1), without random slope

| Covariance Parameter Estimates | | | | |
|-----------------------------------|----|---------|--|--|
| Cov Parm Subject Estimate | | | | |
| UN(1,1) | ID | 4.1467 | | |
| Var(1) | ID | 6.0863 | | |
| Var(2) | ID | 12.6486 | | |
| Var(3) | ID | 8.5389 | | |
| ARH(1) | ID | 0.6479 | | |

| Fit Statistics | | |
|--------------------------|-------|--|
| T It Statistics | | |
| -2 Res Log Likelihood | 472.4 | |
| AIC (Smaller is Better) | 482.4 | |
| AICC (Smaller is Better) | 483.1 | |
| BIC (Smaller is Better) | 489.5 | |

| Null Model Likelihood Ratio Test | | | | |
|-------------------------------------|------------------------|--------|--|--|
| DF | OF Chi-Square Pr > Chi | | | |
| 4 | 43.73 | <.0001 | | |

| Solution for Fixed Effects | | | | | | | |
|----------------------------|-------|-----|----------|-------------------|----|---------|---------|
| Effect | Group | Sex | Estimate | Standard Error | DF | t Value | Pr > t |
| Sex | | 0 | 8.1151 | 0.7566 | 57 | 10.73 | <.0001 |
| Sex | | 1 | 5.7625 | 0.9072 | 57 | 6.35 | <.0001 |
| Days*Group | 0 | | 0.01256 | 0.006706 | 57 | 1.87 | 0.0662 |
| Days*Group | 1 | | 0.01584 | 0.006815 | 57 | 2.32 | 0.0237 |
| Fatmass_cent | | | -0.1101 | 0.07779 | 57 | -1.41 | 0.1626 |
| Adiponectin_cent | | | 0.000340 | 0.000214 | 57 | 1.59 | 0.1176 |

| Type 3 Tests of Fixed Effects | | | | | | | |
|----------------------------------|---|----|-------|--------|--|--|--|
| Effect Num Den DF F Value Pr > F | | | | | | | |
| Sex | 2 | 57 | 84.25 | <.0001 | | | |
| Days*Group | 2 | 57 | 4.17 | 0.0204 | | | |
| Fatmass_cent | 1 | 57 | 2.00 | 0.1626 | | | |
| Adiponectin_cent | 1 | 57 | 2.52 | 0.1176 | | | |

| Model Information | | | |
|---------------------------|-------------------------------|--|--|
| Data Set | WORK.EXERCISE_D | | |
| Dependent Variable | GIRperkgFFMperinsulin | | |
| Covariance Structures | Unstructured, Ante-dependence | | |
| Subject Effects | ID, ID | | |
| Estimation Method | REML | | |
| Residual Variance Method | None | | |
| Fixed Effects SE Method | Model-Based | | |
| Degrees of Freedom Method | Containment | | |

| Class Level Information | | | | |
|-------------------------|--------|--|--|--|
| Class | Levels | Values | | |
| ID | 31 | 1 10 11 19 21 22 23 24 25 27 29 31 4 40 41 42 43 47 49 53 55 56 6 62 63 64 65 66 7 8 9 | | |
| Group | 2 | 0 1 | | |
| Sex | 2 | 0 1 | | |

| Dimensions | | |
|--------------------------|----|--|
| Covariance Parameters | 8 | |
| Columns in X | 6 | |
| Columns in Z per Subject | 2 | |
| Subjects | 31 | |
| Max Obs per Subject | 3 | |

| Number of Observations | | |
|---------------------------------|----|--|
| Number of Observations Read 9 | | |
| Number of Observations Used | 92 | |
| Number of Observations Not Used | 1 | |

| Iteration History | | | | | | |
|-------------------|-------------|-----------------|--------------|--|--|--|
| Iteration | Evaluations | -2 Res Log Like | Criterion | | | |
| 0 | 1 | 516.10980013 | | | | |
| 1 | 2 | 472.08041527 | 5003.9236828 | | | |
| 2 | 1 | 472.05244315 | 15.75583003 | | | |
| 3 | 2 | 471.96665526 | 38.60238182 | | | |
| 4 | 1 | 471.88781630 | 27.67179444 | | | |
| 5 | 1 | 471.51766651 | 54.48619833 | | | |
| 6 | 1 | 471.01138064 | 2922.4054929 | | | |

| Iteration History | | | | | | | |
|-------------------|--|--------------|-------------|--|--|--|--|
| Iteration | eration Evaluations -2 Res Log Like Criterio | | | | | | |
| 7 | 1 | 470.94825230 | 14.88680287 | | | | |
| 8 | 1 | 470.88282128 | 42.42241011 | | | | |
| 9 | 1 | 470.87487295 | 1.24965029 | | | | |
| 10 | 1 | 470.87482281 | 0.00003726 | | | | |
| 11 | 1 | 470.87482280 | 0.00000000 | | | | |

Convergence criteria met but final Hessian is not positive definite.

| Estimated R Matrix for ID 1 | | | | | | |
|-----------------------------|----------------|--------|--------|--|--|--|
| Row | Col1 Col2 Col3 | | | | | |
| 1 | 4.1231 | 5.0859 | 1.1948 | | | |
| 2 | 5.0859 | 9.4281 | 2.2149 | | | |
| 3 | 1.1948 | 2.2149 | 4.1533 | | | |

| Estimated R Correlation Matrix for ID 1 | | | | | | |
|---|-----------------|--------|--------|--|--|--|
| Row | w Col1 Col2 Col | | | | | |
| 1 | 1.0000 | 0.8157 | 0.2887 | | | |
| 2 | 0.8157 | 1.0000 | 0.3540 | | | |
| 3 | 0.2887 | 0.3540 | 1.0000 | | | |

| Estimated G Matrix | | | | | | | |
|-------------------------|-----------|---|----------|----------|--|--|--|
| Row Effect ID Col1 Col2 | | | | | | | |
| 1 | Intercept | 1 | 6.8051 | -0.00804 | | | |
| 2 | Days | 1 | -0.00804 | 0.000287 | | | |

| Estimated G Correlation Matrix | | | | | | | |
|--------------------------------|-------------------------|---|---------|---------|--|--|--|
| Row | Row Effect ID Col1 Col2 | | | | | | |
| 1 | Intercept | 1 | 1.0000 | -0.1821 | | | |
| 2 | Days | 1 | -0.1821 | 1.0000 | | | |

| Estimated V Matrix for ID 1 | | | | | | |
|-----------------------------|----------------|---------|---------|--|--|--|
| Row | Col1 Col2 Col3 | | | | | |
| 1 | 10.9282 | 11.1428 | 7.2276 | | | |
| 2 | 11.1428 | 17.2172 | 10.0598 | | | |
| 3 | 7.2276 | 10.0598 | 12.0566 | | | |

| Estimated V Correlation Matrix for ID 1 | | | | | | |
|---|----------------|--------|--------|--|--|--|
| Row | Col1 Col2 Col3 | | | | | |
| 1 | 1.0000 | 0.8123 | 0.6297 | | | |
| 2 | 0.8123 | 1.0000 | 0.6982 | | | |
| 3 | 0.6297 | 0.6982 | 1.0000 | | | |

| Covariance Parameter Estimates | | | | | | |
|-----------------------------------|----|----------|--|--|--|--|
| Cov Parm Subject Estimate | | | | | | |
| UN(1,1) | ID | 6.8051 | | | | |
| UN(2,1) | ID | -0.00804 | | | | |
| UN(2,2) | ID | 0.000287 | | | | |
| Var(1) | ID | 4.1231 | | | | |
| Var(2) | ID | 9.4281 | | | | |
| Var(3) | ID | 4.1533 | | | | |
| Rho(1) | ID | 0.8157 | | | | |
| Rho(2) | ID | 0.3540 | | | | |

| Fit Statistics | | | | |
|--------------------------|-------|--|--|--|
| -2 Res Log Likelihood | 470.9 | | | |
| AIC (Smaller is Better) | 486.9 | | | |
| AICC (Smaller is Better) | 488.7 | | | |
| BIC (Smaller is Better) | 498.3 | | | |

| Null Model Likelihood Ratio Test | | | | |
|-------------------------------------|------------|------------|--|--|
| DF | Chi-Square | Pr > ChiSq | | |
| 7 | 45.23 | <.0001 | | |

| Solution for Fixed Effects | | | | | | | | |
|--|---|---|----------|----------|----|-------|--------|--|
| Effect Group Sex Estimate Standard Error DF t Value Pr | | | | | | | | |
| Sex | | 0 | 8.0375 | 0.7542 | 28 | 10.66 | <.0001 | |
| Sex | | 1 | 5.6404 | 0.9070 | 28 | 6.22 | <.0001 | |
| Days*Group | 0 | | 0.01312 | 0.005984 | 28 | 2.19 | 0.0368 | |
| Days*Group | 1 | | 0.01692 | 0.006163 | 28 | 2.75 | 0.0104 | |
| Fatmass_cent | | | -0.09971 | 0.07719 | 28 | -1.29 | 0.2070 | |
| Adiponectin_cent | | | 0.000318 | 0.000211 | 28 | 1.50 | 0.1436 | |

| Type 3 Tests of Fixed Effects | | | | | | | | |
|----------------------------------|---|----|-------|--------|--|--|--|--|
| Effect Num Den DF F Value Pr > F | | | | | | | | |
| Sex | 2 | 28 | 82.78 | <.0001 | | | | |
| Days*Group | 2 | 28 | 5.76 | 0.0080 | | | | |
| Fatmass_cent | 1 | 28 | 1.67 | 0.2070 | | | | |
| Adiponectin_cent | 1 | 28 | 2.26 | 0.1436 | | | | |

| Model Information | | | |
|---------------------------|---|--|--|
| Data Set | WORK.EXERCISE_D | | |
| Dependent Variable | GIRperkgFFMperinsulin | | |
| Covariance Structures | Unstructured, Heterogeneous Compound Symmetry | | |
| Subject Effects | ID, ID | | |
| Estimation Method | REML | | |
| Residual Variance Method | None | | |
| Fixed Effects SE Method | Model-Based | | |
| Degrees of Freedom Method | Containment | | |

| | Class Level Information | | | | |
|-------|-------------------------|--|--|--|--|
| Class | Levels | Values | | | |
| ID | 31 | 1 10 11 19 21 22 23 24 25 27 29 31 4 40 41 42 43 47 49 53 55 56 6 62 63 64 65 66 7 8 9 | | | |
| Group | 2 | 0 1 | | | |
| Sex | 2 | 0 1 | | | |

| Dimensions | | |
|--------------------------|----|--|
| Covariance Parameters | 7 | |
| Columns in X | 6 | |
| Columns in Z per Subject | 2 | |
| Subjects | 31 | |
| Max Obs per Subject | 3 | |

| Number of Observations | | |
|---------------------------------|----|--|
| Number of Observations Read | 93 | |
| Number of Observations Used | 92 | |
| Number of Observations Not Used | 1 | |

| Iteration History | | | | | |
|-------------------|---------------------------------------|--------------|--------------|--|--|
| Iteration | Iteration Evaluations -2 Res Log Like | | | | |
| 0 | 1 | 516.10980013 | | | |
| 1 | 2 | 542.40919896 | 2.97111190 | | |
| 2 | 1 | 542.36136081 | 2.94583864 | | |
| 3 | 1 | 541.88523944 | 7.23533737 | | |
| 4 | 1 | 537.94226100 | 131055.16278 | | |
| 5 | 1 | 534.21741871 | 1133835.9563 | | |
| 6 | 1 | 530.42375764 | 307528.42290 | | |

| Iteration History | | | | |
|-------------------|-------------|--------------|--------------|--|
| Iteration | Evaluations | Criterion | | |
| 7 | 1 | 527.34524207 | 2104124.4284 | |
| 8 | 2 | 523.11522489 | 442872.56469 | |
| 9 | 3 | 512.76302333 | | |
| 10 | 1 | 512.68542607 | 155243627.57 | |
| 11 | 1 | 512.68298846 | 32788686.869 | |
| 12 | 1 | 512.64438358 | 10900984.732 | |
| 13 | 1 | 512.52350768 | 3497657.0602 | |
| 14 | 3 | 510.91655051 | | |
| 15 | 3 | 510.91647333 | 1143798.3037 | |
| 16 | 1 | 508.39554003 | 85933.405401 | |
| 17 | 3 | 501.20239625 | | |
| 18 | 1 | 501.19930115 | 8030.3175069 | |
| 19 | 3 | 501.19915724 | | |
| 20 | 1 | 486.87515577 | | |
| 21 | 1 | 476.96727503 | | |
| 22 | 1 | 475.46756062 | 4693.7021109 | |
| 23 | 1 | 474.70856472 | 62.58203543 | |
| 24 | 2 | 474.61969691 | 1.45746877 | |
| 25 | 1 | 474.61781558 | 0.00114609 | |
| 26 | 1 | 474.61781450 | 0.00000000 | |

Convergence criteria met but final Hessian is not positive definite.

| Estimated R Matrix for ID 1 | | | | |
|-----------------------------|--|--------|--------|--|
| Row Col1 Col2 Col3 | | | | |
| 1 | | | | |
| 2 | | 6.1712 | 2.3020 | |
| 3 | | 2.3020 | 7.5919 | |

| Estimated R Correlation Matrix for ID 1 | | | | |
|---|--------|--------|--------|--|
| Row | Col1 | Col2 | Col3 | |
| 1 | 1.0000 | | | |
| 2 | | 1.0000 | 0.3363 | |
| 3 | | 0.3363 | 1.0000 | |

| | Estin | nated | I G Matrix | |
|-----|-----------|-------|------------|----------|
| Row | Effect | ID | Col1 | Col2 |
| 1 | Intercept | 1 | 10.9289 | -0.01728 |
| 2 | Days | 1 | -0.01728 | 0.000017 |

| Estimated G Correlation Matrix | | | | |
|--------------------------------|-----------|----|---------|---------|
| Row | Effect | ID | Col1 | Col2 |
| 1 | Intercept | 1 | 1.0000 | -1.0000 |
| 2 | Days | 1 | -1.0000 | 1.0000 |

| Estimated V Matrix for ID 1 | | | | | |
|-----------------------------|---------|---------|---------|--|--|
| Row | Col2 | Col3 | | | |
| 1 | 10.9289 | 9.3223 | 9.2705 | | |
| 2 | 9.3223 | 14.0306 | 10.1142 | | |
| 3 | 9.2705 | 10.1142 | 15.3571 | | |

| Estimated V Correlation Matrix for ID 1 | | | | |
|---|--------|--------|--------|--|
| Row | Col3 | | | |
| 1 | 1.0000 | 0.7528 | 0.7156 | |
| 2 | 0.7528 | 1.0000 | 0.6890 | |
| 3 | 0.7156 | 0.6890 | 1.0000 | |

Estimated G matrix is not positive definite.

| Covariance Parameter Estimates | | | | |
|-----------------------------------|-----------------------|----------|--|--|
| Cov Parm | Parm Subject Estimate | | | |
| UN(1,1) | ID | 10.9289 | | |
| UN(2,1) | ID | -0.01728 | | |
| UN(2,2) | ID | 0.000017 | | |
| Var(1) | ID | 0 | | |
| Var(2) | ID | 6.1712 | | |
| Var(3) | ID | 7.5919 | | |
| CSH | ID | 0.3363 | | |

| Fit Statistics | | | |
|--------------------------|-------|--|--|
| -2 Res Log Likelihood | 474.6 | | |
| AIC (Smaller is Better) | 486.6 | | |
| AICC (Smaller is Better) | 487.7 | | |
| BIC (Smaller is Better) | 495.2 | | |

| Null Model Likelihood Ratio Test | | | | |
|-------------------------------------|------------|------------|--|--|
| DF | Chi-Square | Pr > ChiSq | | |
| 5 | 41.49 | <.0001 | | |

| Solution for Fixed Effects | | | | | | | |
|----------------------------|-------|-----|----------|-------------------|----|---------|---------|
| Effect | Group | Sex | Estimate | Standard Error | DF | t Value | Pr > t |
| Sex | | 0 | 8.4906 | 0.8150 | 28 | 10.42 | <.0001 |
| Sex | | 1 | 6.2755 | 0.9741 | 28 | 6.44 | <.0001 |
| Days*Group | 0 | | 0.01193 | 0.005941 | 28 | 2.01 | 0.0544 |
| Days*Group | 1 | | 0.01488 | 0.006134 | 28 | 2.43 | 0.0220 |
| Fatmass_cent | | | -0.1403 | 0.08267 | 28 | -1.70 | 0.1008 |
| Adiponectin_cent | | | 0.000263 | 0.000221 | 28 | 1.19 | 0.2446 |

| Type 3 Tests of Fixed Effects | | | | |
|-------------------------------|-----------|-----------|---------|--------|
| Effect | Num DF | Den DF | F Value | Pr > F |
| Sex | 2 | 28 | 80.50 | <.0001 |
| Days*Group | 2 | 28 | 4.57 | 0.0192 |
| Fatmass_cent | 1 | 28 | 2.88 | 0.1008 |
| Adiponectin_cent | 1 | 28 | 1.41 | 0.2446 |