

## AN APPROACH TO THE ANALYSIS OF PROFILE DATA: DATA SET 1

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Our analysis of these data consisted of the following steps:

1. Examination of a graph of these data (see graphs of the data). The graphs we constructed included mean profiles, and graphs for each treatment were overlaid. It was noted that individual 1 (and maybe 7) had conspicuously low weights and that there was some evidence of a supplementation effect, particularly several weeks after therapy began.
2. Analysis of variance was calculated with time as a split factor. This analysis included a sub-model for the time  $\times$  treatment interaction (relevant only after week 4) and linear contrasts for the time effect plus a partitioning of the treatment effect into contrasts for control versus supplementation and the difference between low and high of supplementation (see Table 1).

Although the analysis of variance provides a convenient summary of a possible mean model for these data, it does not provide a valid basis for significance testing since the covariance structure assumed for the complete analysis is unlikely to be appropriate due to time-dependence.

However this analysis does facilitate residual analysis which may indicate aberrant 'subjects' or observations, possible variance heterogeneity and/or the need for a scale change. It also provides appropriate residuals for the calculation of the semi-variogram, a diagnostic tool which may provide insight into the nature of the covariance structure.

Examination of the 'subject' residuals highlighted subject 1 - standardized residual of 2. In absence of additional evidence subject 1 was not excluded from subsequent analysis.