

DIETARY PATTERNS OF SHIFTWORKERS
2. FOOD CONSUMED

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It has been shown that the energy and nutrient intakes of shiftworkers are affected by the shift worked and by days off, (Fisher and Read 1987). The effect of shiftwork on the amounts of food consumed by 90 male shiftworkers has not been discussed.

Each worker completed weighed food records for two days on each shift (day, night, afternoon) and for two days off. Food records were analysed using a computer program (SODA 1, Computer Models, Perth, W.A.) based on Australian food composition tables. (Thomas and Corden 1987). Statistical analysis utilised one way analysis of variance. Daily intakes of major food groups according to shift are shown below:

AMOUNTS OF FOOD CONSUMED ACCORDING TO SHIFT (\bar{x} +S.E.M.)

(g)	DAY	NIGHT	AFTERNOON	DAYS OFF
Alcoholic Beverages	476+73 ∂ †	187+40	153+38	933+81 ϕ
Non-Alcoholic Beverages	1095+66 Ψ	1053+62 Ψ	1046+63 Ψ	627+30
Cereals and Products	202+14	224+16	220+13	207+12
- Bread	136+11	158+13 Ψ	153+ 9	126+ 6
Cakes	74+11	100+15 ϕ	59+10	73+ 6
Meat	286+20	302+20	292+17	308+15
Milk	232+40	257+27 Ψ	234+32	157+15
Fats and Oils	21+ 2	29+ 3 Ψ Ω	23+ 2	21+ 1
Vegetables	243+19 †	208+16	195+16	246+ 8 †
Fruit	289+29 Ψ	379+33 Ψ	298+27 Ψ	223+18

Ψ Denotes significantly greater than days off ($p < 0.05$)

ϕ Greater than all shifts Ω Greater than day shift

∂ Greater than night shift † Greater than afternoon shift

Significant effects of shiftwork were observed for all food groups except meat and cereals and products. Workers on days off consumed significantly more alcoholic beverages but less non-alcoholic beverages and fruit compared with all shifts. In general, workers on shifts apparently consumed greater amounts of food compared with workers on days off.

In the group of workers studied, results indicated that the amounts of food consumed are similar to recent Australian data (Commonwealth Department of Health 1986) and therefore the workers have a similar risk of the development of dietary related diseases.

FISHER, M., and READ, R.S.D., (1987). Proc. Nutr. Soc. Aust.
THOMAS, S., and CORDEN, M., (1987). "Metric tables of Composition of Australian Food" (AGPS: Canberra)
COMMONWEALTH DEPARTMENT OF HEALTH (1986), "National Dietary Survey of Adults" (AGPS: Canberra)

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